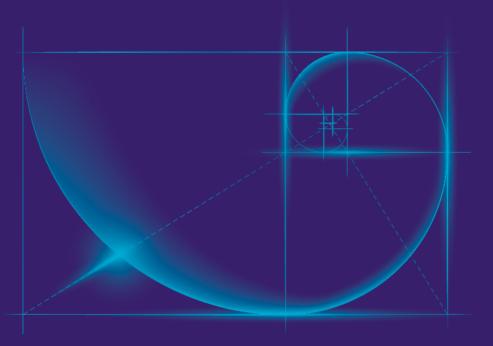
THE PURSUIT OF PERFECTION!

Meet the Turkish Automotive Suppliers' R&D and Design Centers





Knowledge is power.

Francis Bacon

Turkey is a significant vehicle production center, especially on commercial vehicles, with its growing capacity perennial. Its annual production capacity has reached 1,55 million vehicles with the recent investments.

With an export volume of over USD 32 billion, automotive industry is the leading sector in our country. The automotive OEMs employ around 50,000 people, while the supply industry adds another 200,000 people to the work force. These figures climb to 1 million 250 thousand people, when dealerships, logistics, authorized and private services are included.

The automotive industry is setting an example of growth not only from manufacturing, but also from design and engineering perspective. As a result of this, R&D and design expenditures, infrastructure and workforce in the industry are developing and being supported and promoted by the government itself with different funds. It enables the automotive companies to develop cutting-edge technologies in parallel with mega trends of industry.

With 155 R&D and Design Centers, TAYSAD represents 17% of all R&D and Design Centers in Turkey. As a result, TAYSAD R&D and Design Centers have a significant share in Turkey's R&D and Design expenditure. All these R&D and Design Centers have many national and international funded R&D and Design projects on the concepts of the automotive industry.

This book briefly names and summarises the R&D and Design capacity of the Turkish automotive supplier industry with its capabilities and interests. Each R&D and Design Center has important engineering and manufacturing expertise in different fields.



TAYSAD BOARD, 2018 - 2020

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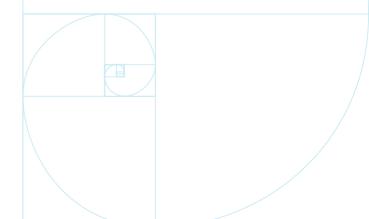
Auditing Commission (President) Sismak Otomotiv San. ve Tic. A.Ş

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Member of Auditing Commission Döksan Basınçlı Döküm ve Mak. San. ve Tic. Ltd. Şti.

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Cavo Otomotiv Tic. ve San. A.Ş. - Taysad Board Member

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Süheyl Baybalı

Taysad - Co-chair

Serhat Türker

Taysad - Specialist

Ali Erkin Kutlu

Standart Profil Otomotiv San. ve Tic. A.Ş.

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Yeşilova Holding A.Ş.

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Şükrü Özen

Bias Mühendislik Ltd. Şti.

INDEX

AKA OTOMOTÍV SAN. VE TÍC. A.S. AKIM METAL SAN. VE TİC. A.S. 10 AKTAS HAVA SÜSPANSİYON SİSTEMLERİ A.S. 12 ALBA PLASTIK SAN. VE TIC. A.S. 14 AL-KOR MAKİNA KALIP SAN. VE TİC. A.S. 16 ALPPLAS ENDÜSTRİYEL YATIRIMLAR A.S. 18 ALTAN HİDROLİK MÜH. SAN. VE TİC. A.S. 20 ANGST PFISTER ADVANCED TECHNICAL SOLUTIONS A.Ş. 22 A-PLAS GENEL OTOMOTIV MAMÜLLERI SAN. TİC. LTD. ŞTİ. ARIKAN AUTOMOTIVE 26 AROBUS ARAÇ İMALAT SAN. VE TİC. A.Ş. ASAŞ ALÜMİNYUM SANAYİİ VE TİCARET A.Ş. 30 ASSAN HANIL OTOMOTIV OTOMOTIV SAN. VE TIC. A.Ş. 32 AVL ARASTIRMA VE MÜHENDİSLİK SAN. VE TİC. LTD. STİ. B PLAS BURSA PLASTIK METAL INS. VE TUR. SAN. VE TIC. A.S. BANT BORU SAN, VE TİC. A.S. BELGİN MADENİ YAĞLAR TİC. VE SAN. A.S. BEYCELİK GESTAMP KALIP VE OTO YAN SAN. PAZ. VE TİC. A.S. BIRINCI OTOMOTIV SAN. A.S. BOSCH SAN. VE TİC. A.S. 44 46 CADEM A.S. 48 CAVO OTOMOTIV TICARET VE SANAYI A.S. CENGİZ MAKİNA SAN. VE TİC. A.S. CMS JANT VE MAKİNA SAN. A.S. COSKUNÖZ METAL FORM MAKINA END. VE TIC. A.S. 56 CPS PRESSFORM SAN. VE TIC. A.Ş. 58 CELİK HALAT VE TEL SAN. A.S. ÇEMTAŞ ÇELİK MAK. SAN. VE TİC. A.Ş. DINIZ ADIENT OTO DONANIM SAN. VE TIC. A.S. DİTAS DOĞAN YEDEK PARCA İMALAT VE TEKNİK A.S.

DÖNMEZ DEBRİYAJ SAN. VE TİC. A.S.

ECOPLAS AUTOMOTIVE IND. INC. 70 EGE ENDÜSTRİ VE TİC. A.S. 72 EGE FREN SAN, VE TIC. A.S. 74 EKO ENDÜSTRİ KALIP OTO. PLASTİK ve SPOR ALET. SAN. DIS TİC. LDT. STİ. 76 EKOL LOJISTIK A.S. 78 ELATEK KAUCUK SAN. TİC. A.S. 80 EPSAN PLASTIK SAN, VE TIC, A.S. 82 ERDEMİR ÇELİK SERVİS MERKEZİ SAN. VE TİC. A.S. 84 ERENLİ SAÇ PROFIL KAUÇUK VE PLASTİK SAN. VE TİC. A.Ş. 86 ERMETAL OTOMOTIV VE EŞYA SAN. VE TİC. A.Ş. 88 ERSAN KAUÇUK SAN. VE TİC. A.Ş. 90 ESTAŞ EKSANTRİK SAN. VE TİC. A.Ş. 92 FARPLAS OTOMOTIV AS 94 FEKA OTOMOTÍV MAMŰLLERÍ SAN. VE TÍC. A.S. 96 FERRO DÖKÜM SAN. VE DIS TİC. A.S. 98 FIGES FIZIK VE GEOMETRIDE BILGISAYAR SIM. HIZ. TIC. A.Ş. 100 FKT KOLTUK SİSTEMLERİ ÜRETİM VE DAĞITIM SAN. VE TİC. A.Ş. GRAMMER KOLTUK SİSTEMLERİ A.S. 104 HAKSAN OTOMOTİV MAMÜLLERİ SAN. VE TİC. A.S. 106 HATKO TEKNİK DONANIMLAR MÜMESSİLLİK VE TİC. A.S. 108 HEKSAGON MÜHENDİSLİK VE TASARIM A.S. TAYSAD OSB SUBESİ 110 HEMA ENDÜSTRİ A.S. 112 INCI AKÜ SAN, VE TİC, A.S. 114 İNKA YAPI BAĞLANTI ELÉMANLARI SANAYİ VE TİCARET A.S. 116 ITELLIGENCE BİLGİ SİSTEMLERİ A.S. 118 IZELTAS EL ALETLERI SAN. VE TIC. A.S. 120 KALE BALATA OTOMOTIV SAN, VE TIC. A.S. 122 KALE OTO RADYATÖR SAN, VE TİC. A.S. 124 KANCA EL ALETLERI DÖVME ÇELİK VE MAK. SAN. A.Ş. 126 KANSAİ ALTAN BOYA SANAYİ VE TİC. A.S. 128 KARAKAYA 86 KAT. KAP. KİM. MAD. MAK. SAN. TİC. LTD. STİ.

- 130 KARE METAL FORM SAN, VE TIC, A.S.
- 132 KAREL KALIP SANAYİ A.Ş.
- 134 KENTPAR OTOMOTIV VE MAKINA SAN, TIC, LTD, STI.
- 136 KIRPART OTOMOTİV PARÇALARI SANAYİ VE TİC. A.Ş.
- 138 KOCSISTEM BİLGİ VE İLETİSİM HİZMETLERİ A.S.
- 140 KORDSA TEKNİK TEKSTİL A.S.
- 142 KORMAS ELEKTRIKLI MOTOR SAN. VE TIC. A.S.
- 144 MAGNA OTOMOTİV SANAYİ VE TİCARET A.S.
- 146 MAGNETİ MARELLİ MAKO ELEKTRİK SAN. VE TİC. A.S.
- 148 MARTUR SÜNGER VE KOLTUK A.Ş.
- 150 MAYSAN MANDO OTOMOTİV PARÇALARI SAN. VE TİC. A.Ş.
- 152 MEKLAS OTOMOTIV İHT. İHR. SAN. TİC. LTD. ŞTİ.
- 154 MESA MAKİNA DÖKÜM GIDA SAN. TİC. A.Ş.
- 156 MUTLU AKÜ VE MALZ. SAN. A.Ş.
- 158 NESAN OTOMOTÍV A.S.
- 160 NORM CİVATA SAN. VE TİC. A.Ş.
- 162 NOVA KALIP SANAYİ A.S.
- 164 NURSAN KABLO DONANIMLARI SAN. VE TIC. A.Ş.
- 166 ODELO OTOMOTÍV AYDINLATMA A.S.
- 168 OLGUNÇELİK SAN. VE TİC. A.Ş.
- 170 ORAU ORHAN OTOMOTİV KONTROL SİS. SAN. A.Ş.
- 172 ORTADOĞU RULMAN SAN. VE TİC. A.S.
- 174 ORTEM ELEKTRONİK ANONİM ŞİRKETİ
- 176 OTTONOM MÜH. ÇÖZ. TASARIM OTOMASYON DANIŞMANLIK A.Ş.
- 178 ÖZLER PLASTİK SAN. VE TİC. A.Ş.
- 180 PARSAN MAKİNA PARÇALARI SANAYİİ A.Ş.
- 182 PİMSA OTOMOTİV A.Ş.
- 184 PLUS KALIP SAN. VE TİC. A.S.
- 186 ROLLMECH AUTOMOTİVE SAN. VE TİC. A.Ş.
- 188 RÖZMAŞ ÇELİK SANAYİ VE TİCARET A.Ş.
- 190 SARIGÖZOĞLU HİDROLİK MAKİNA VE KALIP SANAYİ A.Ş.

- 192 SEMA PLASTİK KALIP VE MAKİNE SAN, VE TİC, LTD, STİ.
- 194 SIO AUTOMOTIVE TAŞIT YEDEK PARÇA SAN. VE TİC. A.Ş.
- 196 SISTEM TEKNIK ENDÜSTRIYEL FIRINLARI LTD. ŞTİ.
- 198 SİSTEM TEKNİK ENDÜSTRİYEL FIRINLARI A.Ş.
- 200 SKT YEDEK PARÇA MAKİNA SAN. VE TİC. A.Ş.
- 202 STANDARD PROFIL OTOMOTIV SAN. VE TIC. A.Ş.
- 204 SUPSAN MOTOR SUPAPLARI SAN. VE TİC. A.Ş.
- 206 SUPTEK YAĞ KECELERİ SAN. VE TİC. A.S.
- 208 SAFAK MAKINA YEDEK PARCA SANAYI VE TICARET A.S.
- 210 TAKOSAN OTOMOBİL GÖSTERGELERİ SAN. VE TİC. A.S.
- 212 TEKLAS KAUCUK SAN. VE TİC. A.S.
- 214 TEKNİK KİMYA DONATIM MAKİNE ENERJİ SAN. VE TİC. A.Ş.
- 216 TEKNO KAUCUK SANAYİİ AS
- 218 TEKNOROT OTOMOTIV ÜRÜNLERI SAN. VE TIC. A.Ş.
- 220 TIRSAN TREYLER SAN. VE TİC. NAKLİYAT A.S.
- 222 TİRSAN KARDAN A.S.
- 224 TKG OTOMOTIV SAN. TIC. A.S.
- 226 TOKSAN YEDEK PARÇA İMALAT TİCARET VE SANAYİ A.Ş.
- 228 TOYOTA BOSHOKU TÜRKİYE OTOMOTİV SAN. VE TİC. A.Ş.
- 230 TOYOTETSU OTOMOTİV PARÇ. ÜRETİM VE TİC. A.Ş.
- 232 ÜNVER GRUP OTOMATİV SAN. VE TİC. A.Ş
- 234 VALEO OTOMOTIV SISTEMLERI END. A.S.
- 236 VESTEL ELEKTRONIK SAN. VE TIC. A.S.
- 238 YAMAS YAŞAR MAKİNA KALIP OTO YEDEK PARÇA A.Ş.
- 240 YEŞİLOVA HOLDİNG A.Ş.
- 242 YILDIZ KALIP SAN. VE TİC. A.S.
- 244 YİĞİT AKÜ MALZEMELERİ NAKLİYAT SAN. VE TİC. A.Ş.
- 246 YPS OTOMOTÍV A.S.
- 248 ZF LEMFÖRDER AKS MODÜLLERİ SAN. VE TİC. A.Ş.

AKA Otomotiv

Commodity Group
Automotive Sub Supplier

Location

Orhangazi / Bursa / Turkey

Headquarters & Branches Addresses

Örnekköy Plant (Head Office)

Örnekköy Yolu üzeri 1.km 16800 Orhangazi, Örnekköy, Bursa

Yeniköy Plant

Muradiye Mah. Damlar Mevkii 16800 Orhangazi, Yeniköy, Bursa

AKA Automotiv SRL

Com. Calinesti Sat., Valeni Podgoria Nr.364-a 117207, Arges, Romanya

Phone: +90 224 270 33 00 Fax: +90 224 270 33 01

Website

www.akaoto.com.tr

Contact Person

Emre Güzelordu / R&D Manager

Personal Mail eguzelordu@akaoto.com.tr

Interests

Cockpit Parts

- · Cross Car Beam
- · Pedal Boxes
- · Hand Brake

Chassis Parts

- Control Arm
- Front Sub Frame
- Rear Axle
- Bumper Beam

Mechanism

- Spare Tyre Lifter
- Window Regulator
- Hood Latches
- Hinges
- Truck Cab Locks
- · Door Latches

Fuel Tank

- Motorcycle Metal Fuel Tank
- · Oil Pans

Capabilities

Cae

- Finite Element Analysis
- Meshing, Modal analysis, Static, Stiffness, Dynamic, Fatigue
- Crash Analysis, Vibration Analysis
- · Sheet Metal Blanking and Form Analysis

Engineering Design

- Co-Design
- 2D Drawing, 3D Modelling, Benchmarking

Model And Prototype

- Generation of Design Input and Pre-Design
- Validation of Design and Release
- Detail Cost Analysis
- Prototype
- Validation Test

Validation And Verification

- Climatic Chamber
- Thermal Shock Cabins
- Water Proofness Cabin
- · Salt Spray Cabin
- Noise Level Check Cabin
- Vibration Test Unit





Akım Metal Sanayi ve Ticaret Anonim Şirketi

Commodity Group

Servo Motor, Led Lighting, Engine and Led Drivers, Medical Products, Home Appliances

Location

TUZLA-ISTANBUL

Headquarters & Branches Addresses Beylikbağı Mah. Memişoğlu Cad. 0326/2 Sk. No: 4 41400 Gebze - Kocaeli / Türkiye&İstanbul Anadolu Yakası Organize San. Bölg. 2. Sanayi Cad. No: 7 34459

Tuzla - İstanbul / Türkiye

Phone: +90 216 593 19 90 Fax: +90 216 593 19 99

Production Site / Capacity
47.000 m²/1655 Employees

Website

www.akimmetal.com.tr

Contact Person Dilek Alboğa / Project Support

Personal Mail arge11@akimmetal.com.tr

Interests

- Design, optimization, experiment and prototyping of electric motors and generators
- Embedded Software Development,
- CAD-CAM Schematic and PCB Design.
- Industrial Servo Motor Drives (400W to 1.5KW)
- Power Analyzers
- DALI Controlled Smart LED Drivers
- 3D Modeling and Rendering
- Advanced Material Processing Techniques and Precision Technologies.
- LED and Lighting Technologies, Horticulture
- Internet of Things
- Sensors
- RF Systems
- Machine Tools

Capabilities

- OEM producer for metal and polymer parts for automotive, home appliance and motor industries
- Mold design for metal and plastic injection, bi-molding and over-molding
- Heat Exchanger and Heat Sink Production
- Servo Motors
- Metal and Composite 3D Modelling

Laboratory Capabilities

- 3D and Form Measuring
- X-Ray and Spectrometrical Analysis
- Standard And Special Purpose Measurement Instruments
- Surface Roughness and Profile Projection
- Mold Flow, Thermal, Mechanic and Magnetic Analysis
- Optical and Lighting Measurements
- Machine Tools



- Electrical Vehicle Technologies
- Servo Motor and Driver Technologies
- Sensor Technologies
- White good Applications and Smart Home Appliances
- Internet of Things
- Lighting Technologies
- Machine Tools

















Aktaş Hava Süspansiyon Sistemleri San. ve Tic. A.Ş.

Commodity Group

AUTOMOTIVE (RUBBER & SHEET METAL&PLASTIC&ALUMINIUM)

Location

BURSA / TURKEY

Headquarters

Aktaş Hava Süspansiyon Sistemleri San. ve Tic. A.Ş. Merkez OSB Ali Osman Sönmez Bulvarı No:13/1A 16140 Nilüfer, Bursa / TURKEY

Branches Addresses

Aktaş Hava Süspansiyon Sistemleri San. ve Tic. A.Ş. Şube Kestel Organize Sanayi Bölgesi Ahmet Vefik Paşa Mah. Kayasan Sok. No:3 Kestel, Bursa / TURKEY

Ak-İzo Yalıtım Sistemleri

San. ve Tic. A.Ş. Demirtaş Organize Sanayi Bölgesi Reyhan Sok. No:3 16245 Osmangazi, Bursa / TURKEY Techno Aktaş AD

Kuklen Industrial Zone Area Kapsida 4101 N1 Kuklen, Plovdiv/BULGARIA

LFT Germany GMBH

Kruppstrasse 2a, 41540 Dormagen / GERMANY

Aktas North America Corporation 500 E. Touhy Ave, Unit D Des Plaines 60018 Illions / USA

Ankeshu Rubber Technology Co. Ltd. FaZhan Avenue, West Rihan Road, Changxing Economic Technology Zone, Huzhou, Zhejiang Province

Phone: +90 224 300 00 00 Fax: +90 224 300 00 99

Website

www.aktasholding.com

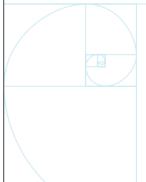
Contact Person Erhan AKSEL / R&D Manager

Personal Mail eaksel@aktasholding.com

Interests

- Rubber Materials
- Composite Materials
- Innovative Materials
- Intelligent Materials
- · Passenger Comfort
- Module Design & System Design
- Recycling Technologies

- Vehicle Suspension Systems
- Rubber Products





Capabilities

Concept Development and Styling

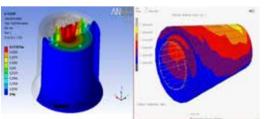
- Full Service Supplier
- 3D Modelling

Engineering Design

- Co-design, Tailor Made, Inhouse
- Compounding/Formulation
- Virtual Product
- FEA Analysis

Model and Prototype

- Inhouse Tooling Design, Inhouse Prototype
- Manufacturing
- Validation and Verification
- Performance Test, Inhouse
- · Validation Testing













Alba Plastik San. ve Tic. A.Ş.

Commodity Group
Plastic Injection Parts and Molds

Location

KOCAELI / TURKÉY

Headquarters & Branches Addresses
TOSB Organize Sanayi Bölgesi
1. Cadde 13. Sokak No: 4, 41480
Şekerpinar - Cayırova / KOCAELİ
Phone: +90 262 658 23 30 - Ext 337

Phone: +90 262 658 23 30 - Ext 337 Fax: +90 262 658 23 29

Website

www.albaplastik.com.tr

Contact Person

Pinar Endirce / Sales & Business Development Ass. Manager

Personal Mail pinar.endirce@albaplastik.com.tr

Interests

- Interior Plastic Parts
- Exterior Plastic Parts
- Bumper
- Painted and Decorated parts
- Plastic Injection Mold Production
- IP and Door Panel Trim Parts
- Safety and Motor Cooling System Parts

Cluster Opportunities

- Automotive Spare Parts
- Chrome Coating
- Bumper Plastic Parts
- Fabric coated interior parts
- Dashboards component
- Plastic interior & exterior trims
- · Center Console Modules
- Air Guide Systems
- Engine compartment Units

Capabilities

Design Centre / Product Development

- Full Support Supplier
- Co-Design, Co-Engineering
- Mold Flow Analysis
- Fixture & Apparatus Production
- · Project Management

Plastic Parts Production

• Machine Park from 50T to 2400T

Toolshop

• Tool production upto 30 ton

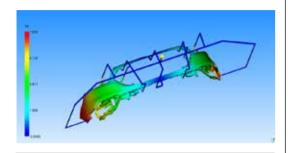
Labarotary Equipments

• Video projection, Coord 3D CMM

Quality Management

ISO TS 16949:2016 certificated by SGS

MALBAPLASTIK















AL-KOR Makina Kalıp San. ve Tic. A.Ş.

Commodity Group

Exterior & Interior Lighting Parts, HVAC Parts, Engine Parts, Rack Cabinet Systems

Location

İstanbul, Bursa

Headquarters

Ömerli Mahallesi, İhsangazi Sokak No: 26 Arnavutköy 34555 İstanbul, Turkey

Phone: +90 212 876 58 20

Branches Adresses

Bursa Plant

Hasanağa Organize Sanayi Bölgesi,

1. Cadde No:4 Nilüfer 16140 Bursa, Turkey

Phone: +90 224 484 2245

Phone: 90 212 876 5820 Fax: +90 212 876 5826

Website

www.al-kor.com.tr

Contact Person

Erol Divanyan / R&D and Projects, Deputy

General Manager

Personal Mail erol.divanyan@al-kor.com.tr

Interests

- Plastic Injection (Mono, Bi)
- Metal Sheet Stamping (Progressive, Operational)
- Welding (Ultrasonic, Vibration, Hot Plate)
- Metalization
- HVAC System Parts
- Exterior & Interior Lighting Parts
- Mechatronics
- Automated Lines
- Testing Lines
- Mold Design and Manufacturing
- Tool Design and Manufacturing
- Electronic System Design
- · Plastic Impregnation

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking
- 3D Modelling, Interior/Exterior Lighting Parts

Engineering Design

- Co-design, Tailor Made, Inhouse
- CAE Analyse, Post Processing

Model and Prototype

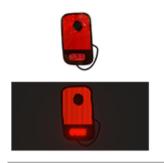
- Inhouse Tooling, Inhouse Prototype
- Rapid Prototype

Validation and Verification

- Plastic Parts Performance Test, Inhouse
- All Plastic Parts Validation Testing, Equipment
- Calibration, Aging Validation

- Lighting Systems
- Composite System Design
- Smart System Design
- Smart Mobility











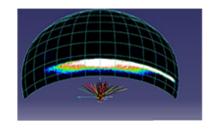


















Alpplas Endüstriyel Yatırımlar A.Ş.

Commodity Group
Plastic Part Manufacturing and
Electronic Manufacturing

Location

İstanbul, Bolu //TURKEY

Headquarters & Branches Addresses

Headquarter: Mermerciler San. Sit. 4. Cad. No:16 Beylikdüzü / İstanbul / TURKEY

Branches: Yukarı Soku Mah. Çele Sok. No: 74 Bolu / TURKEY

Phone: +90 212 876 27 90 Fax: +90 212 876 27 99

Production Site / Capacity 28.000 m² closed area

Website

www.alpplas.com

Contact Person

Halil Bozkurt / Deputy General manager-R&D, Technology and Investments

Personal Mail halil.bozkurt@alpplas.com

Interests

- Electronic Cards for Automotive and House Appliance
- Software Development
- Complex Component Design and Manufacturing
- Touch Screen Control Panels Hardware and Software
- Lightining Electronic
- Connectivity, Artifical Intelligence Applications
- Special Sensor Application Such as Radiation Measurement and Monitoring
- Main Control Cards for House Appliance such as Oven Timer

Cluster Opportunities

- Automotive and House Appliance Electronics
- · Embedded Software
- New and Innovative Plastics&Polymers
- Lightining Electronics
- Robotic and Automation
- Artifical Intelligence
- Connectivity

Capabilities

- EMS Electronic Manufacturing Services
- PCB and Circuit Design
- Embedded Software Development
- Wide Range of Electronic (FCT, ICT, SPI, AOI, Xray,etc) and Mechanic (3D, CMM, etc) Testining Capabilities
- UserInterface Software Development
- Prototype PCB and Electronic Card Production
- Assembly Operations
- Special Automation and Robotics Hardware and Software Design
- Plastic Injection Mould Design and Manufacturing
- Plastic Injection Production (incl gas assited injection)
- · Laser Marking, Screen and Pad Printing
- Inhouse Paintshop
- Validation and Control
- J-STD-001 CIT;IPC-A-610 CIT
- Electronic Laboratory (XRF, Glowwire, Climatic Chamber, etc.)
- Mould Design, Mould Production and Serial Production with 2K Injection Moulding, Insert Moulding and IML/IMD
- Licensed Production; OEM and/or Finished Productions (such as Twin Scintific Set)

ALPPLAS



Altan Hidrolik Mühendislik Sanayi ve Ticaret A.Ş.

Commodity Group

Hydraulic System Hydraulic Materials and Equipment, Manufacturing, Engineering Services, Complete System Design

Location

İSTANBUL

Headquarters & Branches Addresses

Headquarters: Orta Mah. Üniversite Cad. No:33 Orhanlı Tuzla / İstanbul Phone: 90 216 593 33 00 Fax: 90 216 593 33 10

İmes Branch: İmes Sanayi Sitesi 304 Sok. No:4 Yukarı Dudullu, Ümraniye / İstanbul Phone: +90 216 466 90 60 Fax: +90 216 365 63 54

İkitelli Branch: İkitelli Sanayi Bölgesi, Demirciler Sanayi Sitesi E2 Blok No:404 Başakşehir / İstanbul Phone: +90 212 549 05 03

Phone: +90 212 549 05 03 Fax: +90 212 549 05 21

Orhanlı Branch: Orta Mah. Üniversite Cad. No:33 Orhanlı Tuzla / İstanbul Phone: +90 216 593 33 13

Fax: +90 216 593 33 10

İzmir Branch: 4. Sanayi Sitesi 129/2

Sokak No:2 Bornova / İzmir Phone: +90 232 375 45 33

Fax: +90 232 375 45 34

Production Site / Capacity

10.000 Meter Square Closed Area,100 more than Employees. Hydraulic Hose Fittings 560.000 pcs / year Twisted and Bushed steel rolled pipes 130.000 pcs / year

Website

www.altanhidrolik.com.tr

Contact Person

Oğuzhan Sarıkaya / Automotive Project Responsible

Personal Mail osarikaya@altanhidrolik.com.tr

Interests

- Full Service Supplier
- Hydraulic Systems and Components
- Hydraulic System Design
- Automotive Industry, OEM Manufacturing
- Design and Engineering
- Hydraulic Pumps and Engines
- Mobile Engineering Vehicles

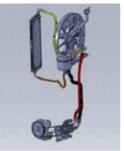
Capabilities

- 3D Modelling, 3D CMM Full Service Supplier, Benchmarking
- Computer Aided Design, Engineering and Manufacturing
- Simulation and Analysis
- CAD-CAM Activities
- Performance Tests
- Hydraulic-Pneumatic Automation
- Hydraulic Test Bench for Durability Tests
- Flushing Works
- Prototype Manufacturing

- Hydraulic-Pneumatic Technologies
- · Hydraulic Gear Pumps and Engines
- Hydraulic Valve Products, Filter and Pollution
 Meter
- Defense, Construction Sector, Transportation
- Automotive Industry
- Engineering Materials Production and Development
- · Project Management



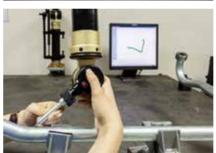






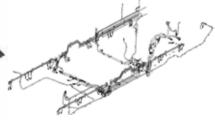












Angst Pfister Advanced Technical Solutions A.Ş.

Commodity Group

Rubber anti-vibration and sealing solutions

Location

Akçalar / Bursa / Turkey

Headquarters & Branches Addresses

Angst+Pfister AG

CH-8052 Zürich / Swiss

Tel: +41 44 306 61 11

Phone: +90 224 280 69 00 Fax: +90 224 484 25 96

Tax. +90 224 404 23 90

Production Site / Capacity
Bursa / 25000m² covered area - 360
employee

Website

www.ats.angst-pfister.com

Contact Person

Ali Kamil Serbest / R&D Manager – R&D Center Coordinator

Personal Mail

kamil.serbest@angst-pfister.com

Interests

- Anti-vibration products
- · Antiroll bar bushes
- Engine mounts
- · Differential mounts
- Suspension system bushes
- Mass dampers
- · Shaft hangers
- Exhaust hangers
- Cone mounts
- Industrial engine mounts
- · Marine mounts
- Leaf spring bushes
- · Hollow rubber towers
- Railway primer/seconder suspension mounts
- Axle Modules
- Torque Rod with bushes
- Steering system bushes
- Oring
- · Sealing gaskets
- · Rotating shaft seals

Cluster Opportunities

Engineering Capabilities

- Computer aided Design (CAD)
- Computer aided Engineering (CAE)
- Product Development from virtual design till Serial Production
- Co-designer title for VW group and BMW company.
- Reverse engineering from sample products

Validation and Verification

- 7 axis Hydraulic Test bench for durability tests (road load data signal play)
- 1 axis hydraulic test bench for dynamic characterization @200Hz
- from 10kN till 250kN electro mechanic Static tensile Test machines
- Climatic chambers until 200°C temperature for dynamic and static test
- Road load data play and signal processing capability for durability tests.
- 3kN dynamic load and 4000Hz frequency modal shaker
- Creep, fatigue, dynamic and static characterization tests for rubber anti-vibration products.

Model and Prototype

- Inhouse mould design and manufacturing
- Prototype shop for development products



Advanced Technical Solutions

Material Development

- Inhouse compound development capability
- Inhouse compound production line

Metrology

- CNC Profile Projectors for dimensional controls
- Xray coating thickness measurement
- Sample cutting station for destructive studies.

Capabilities

- Suspension system suppliers
- Anti-roll bar system suppliers
- Steering system suppliers
- Exhaust system suppliers
- Cardan shaft system suppliers
- Railway system suppliers
- Marine system suppliers
- Agriculture manufacturers
- Construction equipment suppliers
- Home appliances for sealing solutions
- Break system suppliers
- Chassis system suppliers
- · Trailer Manufacturers







A-Plas Genel Otomotiv Mamülleri San. Tic. Ltd. Şti.

Commodity Group

Interior, Exterior and Underhood Plastic Parts for Automotive

Location

BURSA

Headquarters & Branches Addresses

Demirtaş-2 (R&D Center): Demirtaş Dumlupınar OSB Mah. Asri Sok. No:78 Osmangazi / BURSA

Demirtaş-1: Demirtaş Organize Sanayi Bölgesi Açelya Sok. No:6 Osmangazi / BURSA

Çalı: Çalı Sanayi Bölgesi Ahıska Cad. No:266 Nilüfer / BURSA

Phone: +90 224-707 00 77

Fax: +90 224 707 00 88

Production Site / Capacity 48000 m² / 574 Employees

Web Site

www.a-plasltd.com.tr

Contact Person Murat İŞGÖZ / R&D Manager

Personal Mail murat.isgoz@a-plasltd.com.tr

Interests

- Polymer Materials
- Interior Automotive Plastic Parts
- Extrior Automotive Plastic PartsChrome Plating Parts
- Painted Aestetichal Parts
- Blow Molding Parts
- Logos& Name Plates
- Bumper
- Injection Molding Technology
- Extrusion
- Assembly TechnologyLightweighting Technology
- Welding Technology
- Product Design and Development
- Industry 4.0

Cluster Opportunities

- Automotive Plastic Industry
- · Lightweight Design

Capabilities

Concept Development and Styling

- Full Service Supplier
- Co-design
- Simulation and Analysis (Moldflow, Elsyca Plating Manager Software)
- 3D Modelling in NX, Catia, ICEM Surf
- Rapid Prototype

Processing Technologies

- Plastic Injection Molding (Standart Injection Molding, 2K Injection Molding)
- Blow Molding Technology
- 7 Robots Full Automated Painting (1 Million Bumper/Year)
- Chrome Plating
- Hot Stamping
- Assembly Technology
- Welding Technology (Ultrasonic, Hot Plate)
- Extrusion

Validation and Verification

- 3D CMM
- Perfomance Tests
- Laboratory Tests
- Material Tests

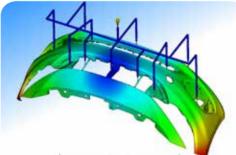
















Arıkan Automotive

Commodity Group

Mechanical Car Lifting Jacks, Hood Latches, Hinges, Back Door Latches, Stamping Parts, Tire Repair Kits

Location

Eskişehir / Turkey

Headquarters & Branches Addresses Headquarters - Organize Sanayi Bölgesi Teknoloji Bulvarı No:13 26110 Eskişehir / Turkey

Phone: +90 222 236 07 70 Fax: +90 222 236 07 74

Production Site / Capacity 30,000 m²

Website

www.arikanautomotive.com

Contact Person

Cem Güney Ayana / R&D Manager

Personal Mail cema@arikanautomotive.com

Interests

- Jack Design & Production
- Hood Latch Design&Production
- Back Door Lock Design&Production
- Innovative Mechanism Design
- Process And Assembly Development

Cluster Opportunities

- Closure Systems
- Autonomous Drive Subsystems

Capabilities

Design & Development

- Full Service Supplier, Benchmarking
- 3D Modelling

Simulation & Analysis

• SimXpert(Marc, Adams, Nastran)

Rapid Prototyping

• Inhouse tooling, Inhouse prototyping

Validation&Verification

- DurabilityTest, Inhouse (Jack&Tools, Hood Latch, Back Door Latch)
- Validation Testing, Inhouse (Jack&Tools, Hood Latch, Back Door Latch)
- Validation under different temperatures, climatic chamber (-72 +180)
- Real Vehicle Condition Simulation- X-Y-Z simulation Machine (Jack)

Production

- Stamping
- Welding (5 welding robots)
- Painting

Assembly (9 assemly lines for mechanism parts)













Arobus Araç İmalat San. ve Tic. A.Ş.

Commodity Group

Automotive Industry Vehicle Conversions and Complementary Adaptations

Location

İstanbul

Headquarters & Branches Addresses

Headquarters & İstanbul Tuzla Plant

İstanbul DOSB Krom Cad. No: 8 F-3 Özel Parsel

A Blok No: 2 34956 Tuzla / İSTANBUL

Branches Addresses & İstanbul Orhanlı Plant

İstanbul DOSB Karadeniz Cad. No: 17 13-5 Özel Parsel 34956 Tuzla / İSTANBUL

Phone: +90 216 394 17 25 Fax: +90 216 394 15 11

Production Site / Capacity

İstanbul Tuzla Plant - totally 20.000 m² with 7.000 m² closed area / 8.000 vehicle conversions/year İstanbul Orhanlı Plant - totally 12.000 m² with 5.000 m² closed area / 5.000 vehicle conversions/year

Website

www.arobus.com.tr

Contact Person

Ali Özhan Öztürk / Director, Product Development Engineering

Personal Mail ali.ozturk@arobus.com.tr

Interests

- Shuttle Vehicle
- School Vehicle

• Refrigerated Vans

- Ambulances
- Vans for Disabled Passengers
- Tow and Rescue Vehicles
- On the Road Maintenance Vans
- Laboratory Type Vehicles
- Pet Transportation Vans
- Road Assistance Vans
- Sales and Marketing Vans
- Police Vans (Law Enforcement)
- Prisoner Transportation Vans

Capabilities

Engineering Design

- 3D Modelling in CATIA, Siemens NX
- Structural Analysis ANSYS Workbench
- Co-design, Tailor Made, Inhouse
- Interior Trim Parts
- Seat and Seat Anchorages
- Electrical Sliding Doors and Automatic Door Systems

- Electrical Steps
- Electrical Systems / Wiring HarnessesHeating and Air Conditioning Systems
- Air Ducts for Ventilation and Air Conditioning Systems
- Emergency Exit Systems
- Sliding Glasses
- Heat Insulation Systems
- Cooling, Refrigerating
- Camcorder System

Model and Prototype

- Inhouse Tooling, Inhouse Prototype
- 3D Printer
- Fast Prototyping

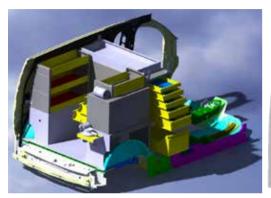
Homologation

- Vehicle Homologation Test
- Global / European / National Type Approval Certification
- System Type Approval Certification
- Component Type Approval Certification

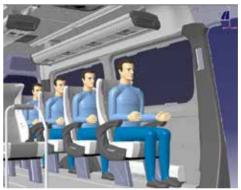
Validation and Verification

- Component Durability and Road Tests
- Performance Test, Inhouse
- Validation Testing, Equipment

^ROBUS









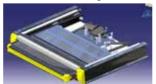
Road Assistance Vans



Ambulance



Electrical Sliding Door



Interior Trim Parts



A/C Compressor

Electrical Steps

Interior View - Shuttle Vehicle

Asaş Alüminyum Sanayi ve Ticaret A.Ş.

Commodity Group

Asas Art

Alu Extrusion Profiles,
Alu Composite Panel,
Alu Flat Rolled Products,
PVC Window and Door Systems,
Alu Roller Shutter and Steel Shutter Systems,
Aluminum Design Products,

Headquarters & Branches Addresses

Rüzgarlı Bahçe Mah., Kumlu Sok., No: 2

Aşaş İş Merkezi, 34810, Kavacık Beykoz-İstanbul, Turkey

Phone: +90 264 462 47 92

Fax: +90 264 462 47 96

Production Site / Capacity

Billet: 90.000 tons/year, Profile: 75.000 tons/year Alu Sheet, Coated Coil, Foil: 65.000 tons/year Alu Composite Panel: 7.500.000 m²/year PVC Profile production: 35.000 tons/year

Alu Lamella Roller Shutter: 30.000.000 linear meters/year

Website

http://www.asastr.com

Contact Person

F. Zafer Zorlu / R&D Center Project Coordination Manager

Personal Mail

zafer.zorlu@asastr.com

Interests

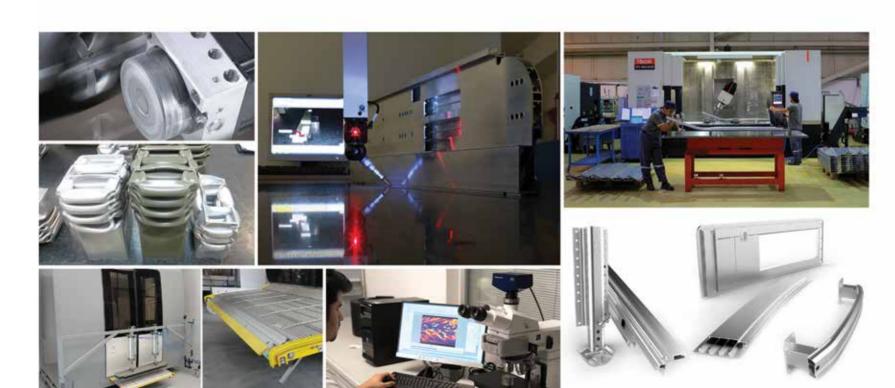
- Alu Railway Car Body and Automotive Car Body
- Aluminum Alloy Development
- Weight Reduction for Automotive Industry
- Complex Alu Profile Extrusion and Machining
- Battery Housing for Electrical Cars
- Aluminum Sheet and Foil
- Bumper Beam, Crash Management Systems, Interior Parts
- ABS and ESP Pump Housing, Anti-Vibration Components
- Sun Roof System Parts for Automotive
- Heatsink Profiles for Leds and Other Applications

Capabilities

- Complex Large and Long Profile Extrusion, Machining and Anodising
- Flat Rolled Alu Sheets and Foils (Heat Shields, Heat Exchangers, Brazing Foil, etc.)
- Product Development, Engineering Co-Design, Validation and Verification
- In house Tooling, In house Prototype Manufacturing
- Alu Robotic Welding, Profile Bending and Machining
- Material Testing for Profile and Sheet Metal

- Aluminum Profile Co-Desing and Prototype Production Lightweight Aluminum Automotive and Transportation Sector (Including Marine, Railway Sector)
- Materials for Defence and Military Applications
- Aluminum Profiles, Door and Windows Frame, Chassis, Interior Products, Complete Car Body Production for Railway Industry
- Windows and Door Systems
- Aluminum Profile and Composite Panel for Facade Systems
- Components and Profiles for Trucks and Trailers
- Aluminum Platforms for Marine Industry
- Engineering Materials Production and Development
- Pneumatic Cylinder Profiles





Assan Hanil

Commodity Group

Automotive Seating Systems, Plastic Modular Systems, Plastic Injection & Blow Molding, NVH Parts & Others

Headquarters & Branches Addresses

Phone: +90 262 317 68 00

Fax: +90 262 317 68 01

Asım Kibar OSB Vatan Cad. No:1 Alikahya İzmit - Kocaeli / TURKEY

Branches

Kocaeli: Asım Kibar OSB Atatürk Mah. 4.Cad. No:6 41305 İzmit / KOCAELİ

Bursa: Demirtaş OSB, Asri Sk. No : 80 /1 16245 Osmangazi / Bursa

Production Site / Capacity
Headquarters: 29.000 m²

Kocaeli: 39.000 m² Bursa: 11.800 m²

Website

www.assanhanil.com.tr

Contact Person
Altan Yıldırım / R&D Director

Personal Mail info@assanhanil.com.tr

Interests

- Innovative Seating Design
- Composite Systems Development
- · Passenger Comfort
- NVH Improvement
- Industry Wide New Products
- Lightweight Application and Design
- Automotive Seating
- Air Suspension Seat Commercial Vehicle
- Plastic Trim Parts
- Electronics Integration

Capabilities

Concept Development and Styling

- Full System Supplier in Plastic and NVH Components
- Industry Design

Engineering Design

- Co-design, Tailor Made
- Mechanical Modeling, Simulation and Dynamic Analysis
- Thermoplastic Composite Development
- Metal Replacement by Composite
- Lightweight Development with Magnesium Alloy

Validation and Verification

- Validation Testing
- · Aging and Lifetime Validation
- Industry 4.0
- Automotive Seating Testing

- · Seating Systems
- Plastic Injection and Blow Molding
- Industrial Design
- Lightweight System Development
- Functional Concept Development Cabin Interior



AVL Araştırma ve Mühendislik Sanayi ve Ticaret Limited Şirketi

Commodity Group

Automotive Design and Engineering

Location

Istanbul

Headquarters Address

Akpınar Mah. Tuna Cad. Ballıca Sokak No: 1, Sancaktepe / ISTANBUL

Phone: +90 (216) 498 76 50

Fax: +90 (216) 498 79 56

Istanbul Branch Address

Abdurrahmangazi Mah. Atatürk Cad.

No: 22 / 11-12, Sultanbeyli / ISTANBUL

Phone: +90 (216) 498 76 60 Fax: +90 (216) 498 79 56

Production Site / Capacity

230 Engineers

Website

https://www.avl.com/avl-turkey

Contact Person

Dr. Cem Kaypmaz / Research Programs Manager

Personal Mail

cem.kaypmaz@avl.com

Interests

- Automotive
- · Autonomous Vehicles
- Electric and Hybrid Vehicles
- Engines
- Transmissions
- Controls and Electronics
- Batteries

Capabilities

- Electronic Control Unit Development
- Software Development

 Hardware Development
- Hardware Development
- Advanced Driver Assistance Systems Development
- Battery Management Systems
- Functional Safety
- Engine and Transmission Design
- Powertrain Integration
- · CAD/CAE
- Component Engineering
- Engine Calibration
- Transmission Calibration
- Performance and Emissions Calibration
- Diagnostics/OBD
- · Vehicle and Driveability

- Automotive and Agricultural Powertrain Engineering
- Electric and Hybrid Vehicles
- Vehicle Controls
- Energy Storage Systems for Vehicles
- Engine Design, Controls and Calibration
- Transmission Design, Controls and Calibration
- Advanced Driver Assistance Systems















B PLAS Bursa Plastik, Metal, İnşaat, Enerji, Madencilik, Jeotermal, Turizm, Sivil Havacılık ve Tarım San. ve Tic. A.Ş.

Commodity Group

Design, Engineering Development, Reverse Engineering, Model and Prototype Production, Die and Mold Design / Manufacturing, Injection Molding, Plating, Extrusion (Compounding, Sheet, Tube, Profile), Blow Molding, Painting, 3D Forming

Location BURSA

Headquarters & Branches Addresses

Bursa BPLAS A.Ş. (HQ)

Demirtaş Organize Sanayi Bölgesi Orkide Sk. No: 15 BURSA

Bursa BPLAS A.Ş.

Panayır Mah. İstanbul Cad. No: 365 BURSA

Gölcük BPLAS A.Ş.

Denizevler Mah. Ali Uçar Cad. İhsaniye No: 5 3 Gölcük / KOCAELİ

Sosab BPLAS A.Ş.

1. Organize Sanayi Bölgesi 3. Yol No: 1 ADAPAZARI

Buseb BPLAS A.S.

Hisar Mevki Liman Yolu Serbest Bölge Gemlik / BURSA

Arı Teknokent BPLAS A.S.

İTÜ Ayazağa Yerleşkesi Koru Yolu ARI6 No: 4B D: 201 Maslak / İSTANBUL

Phone: +90 224 261 09 00 Fax: +90 224 261 09 18

Website

www.bplas.com.tr

Contact Person

Levent Ceylan / R&D Director

Personal Mail

leventc@bplas.com.tr

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking
- 3D Modelling, Interior/Exterior Parts/Fuel tank

Engineering Design

- Co-design, Tailor Made, Inhouse
- Project management

Model and Prototype

- Inhouse Tooling, Inhouse Prototype (FDM, Vacuum casting)
- Manufacturing
- Design

Validation/verification/Laboratories

- Performance Test, Inhouse (Raw material and product)
- Validation Testing, Equipment,
 3D Measurement
- · Calibration, Aging Validation

Mold design and Manufacture (CAD, CAM, CNC...)

Production

 Injection molding, extrusion, compounding, blow molding, thermoforming, coating (PVD and electrochemical), painting, mold manufacturing.

Interests

- Composite Materials
- Innovative Materials
- Intelligent Materials
- Nanomaterials
- BiopolymersMold Design
- Injection Molding
- Extrusion
- Blow Molding
- Plastic Raw Materials & Additives & Fillers
- Recycling Technologies
- Coating Technologies
- Module Design & System Design
- Lightweight Materials and Applications
- Foaming (weight reduction)
- Aviation Applications
- Renewable Energy
- Environment
- Part Design
- Reverse Engineering

- Plastic Injection
- Composite Materials
- Automotive Industry
- Aviation Industry
- Rail Systems Industry
- Building Industry

















Bantboru Sanayi ve Ticaret A.Ş.

Commodity Group

Double Wall / Single Wall Tube
Location

Headquarters & Branches Addresses

BANTBORU GEBZE

Gebze Organize Sanayi Bölgesi İhsan Dede Cd. 700. Sk. No: 712, 41480 Gebze / Kocaeli / TURKEY

Phone: +90 262 677 47 00 Fax: +90 2262 751 46 37

BANTBORU KÖSEKÖY

İstasyon Mah. Ankara Cad. No: 263 D.1 Kartepe /Kocaeli/TURKEY Phone: +90 262 677 47 00 / 404 - 405

BANTBORU GMBH

Am Felsbrunnen D-66119 Saarbrücken / DEUTSCHLAND

Phone: +49 681 94063442

Website

www.bantboru.com

Contact Person
Ozan Koyuncu / R&D Team Leader

Personal Mail okoyuncu@bantboru.com

Interests

- Precision Tube Production
- High- Strength Tube Production
- Roll Forming
- Electrolytic Copper-Coated Steel Strip
- Electrolytic Zinc-Coated Steel Tube
- Polymer-Coated Steel Tube
- Tube Joining Systems

Cluster Opportunities

- Double Wall Steel Tube for Brake Lines
- Single Wal Steel Tube for Fuel Lines and Refrigiration
- A/C Line Components
- Metal Alloy Coatings
- Polimer Coatings
- High Speed Welding Solutions
- Braking Systems

Capabilities

Design:

- Co-Design
- Full service supplier
- Machine and tool design
- Component design
- 2D-3D Modelling

Prototype:

- In house tooling,
- In house prototyping

Test Validation:

- Mechanical tests (yield, strength, elongation...)
- Internal surface cleanness test
- Hydraulic pulse test,
- Hydraulic pulling test
- Life cycle test,
- Climatic environmental test
- Vacuum leak test
- Salt spray test
- 3D CMM
- Fischerscope X ray



O bantboru



Belgin Madeni Yağlar Tic. ve San A.S.

Commodity Group

Lubricants and Greases Manufacturing / R&D / Sales/Marketing

Location

GOSB İhsan Dede Cad. No:125 Gebze / KOCAELİ

Headquarters & Branches Addresses Phone: +90 262 751 02 92

Fax: +90 262 751 01 98

Production Site / Capacity Gebze / 40,000 mton p.a.

Website

www.belginoil.com

Contact Person

Kerem BELGIN / R&D Director Tayfun ÖZATALAY / Marketing & Business Development Director

Personal Mail keremb@belginoil.com tayfun.ozatalay@belginoil.com

Interests

- Industrial Oils (All type of maintenance lubricants - Hydraulic oils, Gear oils, Compressor oils, Turbine oils etc.)
- Metalworking Fluids (Neat Cutting and Water-Soluble types)
- Automotive lubricants (engine/ transmission/gear)
- Marine Lubricants
- Greases (Automotive and Industrial)
- Auxillary Products (Engine coolant, ATF, Screen wash & brake fulids)

Cluster Opportunities

- Automotive Industry
- New Materials & Alloys in Automotive Industry
- Powertrain & Body-in-white manufacturing
- Drawing and Stamping Manufacturing
- Metalworking
- Forging
- Die-Casting
- Machine Tools
- Industry 4.0 Studies
- Alternative Lightweight Materials
- · Electrical vehicles
- Autonomus Driving

Capabilities

Lubricants & greases Manufacturing -Blending, Filling & Storage

Sales & Marketing

After Sales Technical Service

- Full Service Supplier
- Fluid management
- Process Improvement
- Benchmarking
- Lubricant Performance Monitoring
- Total cost management

R&D (Engineering Design)

- Patent Literature
- Co-design, Tailor Made, Inhouse
- Innovative Products
- Project Management

Validation / Verification / Laboratories

- Accredited Laboratory according to ISO 17025
- Product Verification by Physical Tests
- Product Verification by Performance Tests
- Tribologycal Test Equipments (Microtap, SRV, Four-Ball)
- Spectral Analysis (FTIR, X-ray, ICP)
- Corrosion Test Capabilities (Salt Spray, Climate Chamber)



Beyçelik Gestamp

Commodity Group

Commodity Group Die & Sheet Metal Forming

Location:

Bursa Organize Sanayi Bölgesi Kahverengi Cad. No: 13 Nilüfer / BURSA

Headquarters & Branches Addresses

- Sheet Metal Forming and Assembly Plant;
 Bursa Organize Sanayi Bölgesi Kahverengi
 Cad. No: 13 Nilüfer / BURSA
- Die Technologies and R&D Center;
 Demirtaş Organize Sanayi Bölgesi Kardelen Sok. No: 10 Osmangazi / BURSA
- Hot Stamping;
 G1 and Hemming Plant; Demirtaş Organize
 Sanayi Bölgesi Kardelen Sok. No: 10
 Osmangazi / BURSA
- Assembly Plant and Sheet Service Center;
 Organize Sanayi Bölgesi Turuncu Cad. No: 4
 Nilüfer / BURSA
- Chassis Plant;
 Taysad Organize Sanayi Bölgesi 1. Cad. 14. Yol
 No: 7 Çayırova / KOCAELİ
- Celikform Gestamp Plant;
 Organize Sanayi Bölgesi Kırmızı Cad. No:1
 Nilüfer / BURSA

 Romania Plant Address: Com. Dârmanesti, Arges, 117360, ROMANIA

Contact

Phone: +90 224 270 06 00 Fax: +90 224 241 52 00 Website www.bevcelikgestamp.com.tr

Contact Person

Gökhan Cengiz / R&D Department Manager İmren Öztürk Yılmaz / R&D Manager

Personal Mail

imrenyilmaz@beycelikgestamp.com.tr gokhancengiz@beycelikgestamp.com.tr

Interests

- Innovative Materials
- Composite-Hybrid Materials
- Lightweight Materials
- · New Welding Technology
- Advanced Technology Production Methods
- Hot / Cold Stamping
- Augmented Reality Applications
- Hot Forming Die Technology
- Co-Desing
- Human-Machine Interaction
- Additive Manufacturing Applications

Capabilities

Production and Manufacturing

- Hot Forming
- · Cold Forming
- Roll Forming
- Tooling & Die Manufacturing

Computer Aided Design

- Tooling & Die design
- 2D-3D Modelling
- CAD-CAM
- Simulation and Analysis
- Co-design
- Required welding processes for assembled parts
- Laser fixture design and manufacturing

- New Forming Technologies
- New Assembly Technologies
- Co-design
- Lightweight Automotive Components



Birinci Otomotiv A.Ş.

Commodity Group
Forging, Casting, Machining

Location

TAYSAD Organize Sanayi 2. Cad. No:1, Şekerpinar, Çayırova 41420 Kocaeli / TURKEY

Headquarters & Branches Addresses
TAYSAD Organize Sanayi 2.
Cadde No:1, Şekerpınar, Çayırova
41420 Kocaeli / TURKEY

Phone: +90 262 723 42 00 Fax: +90 262 723 42 23

Production Site / Capacity
14,000 m² closed area
(total 42,000 m² area) with annual forging capacity of 22,000 tonnes

Website www.birinci.com

Contact Person Vedat KORAP / R&D Manager

Personal Mail vedat.korap@birinci.com

Interests

- Steel Hot Forged & Machined Parts
- Assembled Parts
- Machined Casting Parts
- Aluminium Alloyed Forged and Machined Parts

Cluster Opportunities

- Suspension System (Stabilisor Link, Control Arm Bushing, Barpin, Spring Clamp Plate, Forged Console, Suspension Pin)
- Chassis System (Towing Eye, Stabilisator, Beam Fenders, Hinge Assembly, Wheel Wrench, Cab Mounting Brackets, Reinforcement Bracket, Torsion Bar)
- Transmission System (Shift Fork, Bevel Gear, Clutch Yoke, Injector Clamp, Fan Pulley, Fan Spacer, Engine Cover, Exhaust Manifold, Wheel Hub, Hub Drive Member, Axle Parts (Seat & Caliper Bracket, Spindle, Differential Pinion Shaft)
- Steering system (Pitman, Steering, Idler & Drop Arms, Stub Axle, King Pin, Locknut, Knuckle)
- Modular Systems (Power Step)

Capabilities

- Hot Forging, Machining & Assembly
- In-house Tool Design and Build
- CAE Analysis
- Forging Simulation
- Product and Process Development
- Friction, MAG Welding
- Tailor Made Assembly Stations
- Reverse Engineering
- Rapid Prototype Capability
- In-house Testing Systems Design & Build
- Wide Range of Physical and Mechanical Testining Capabilities (CMM, Crack Control, Surface Roughness, Tensile Strength, Metalic Microscope, Salt Spray Test, X-Ray, Ultrasonic Test, Spectrometer, etc.)
- TS16949, ISO 14001 and OHSAS 18001, Q1, ILRO
- Design & Engineering
- Machine Design and Build

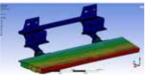




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Bosch Sanayi ve Ticaret A.Ş.

Commodity Group
Automotive

Location BURSA

Headquarters & Branches Addresses STUTTGART

Phone: +90 224 219 65 90 Fax: +90 224 219 24 62

Website

www.bosch.com.tr

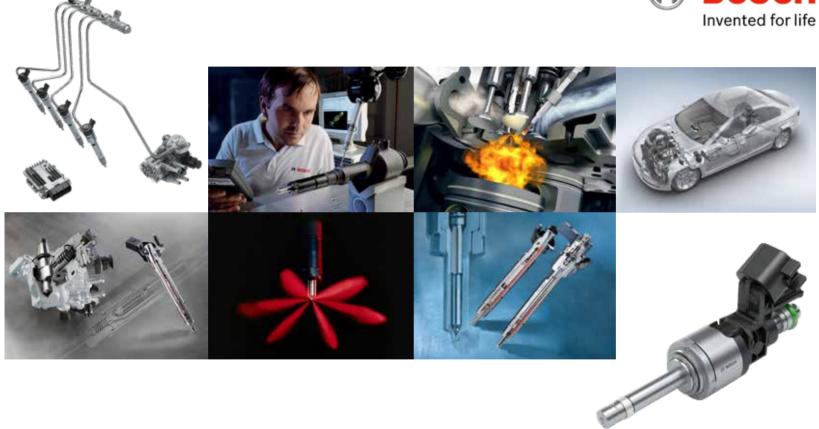
Contact Person

Tolunay Demir/ R&D Coordinator

Personal Mail tolunay.demir@tr.bosch.com

Interests Capabilities • Injectors • Design • Powertrain Simulation Validation and Verification • Project Management • Hydraulic Function Test Equipment • Injector Life Test Equipment • High Pressure Test





Cadem A.Ş.

Commodity Group Engineering

Location Istanbul

Headquarters & Branches Addresses

Headquarter: Burhaniye Mah. Taş Ocakları Sk. No:3/A-B Beylerbeyi 34676 Üsküdar / İstanbul

Ankara Office: 100. Yıl Bulvarı No:99 Ostim Finans ve İş Merkezi (OFİM) 5. Kat 21/G Ostim / Ankara

Bursa Office: Üçevler Mah. Ritim Sok. No: 12/19A Offis Mer Plaza 16120 Nilüfer / Bursa

İzmir Office: Bayraklı Mah. Anadolu Cad. Kat:10

No:41/1001, 35530 Bayraklı / İzmir

Bursa Factory: Hosab 7. Cad. No:13 Nilüfer / Bursa

Phone: +90 (216) 557 64 64 Fax: +90 (216) 557 67 77

Production Site / Capacity

Bursa Website

cadem.com.tr

Contact Person

Samih Yedievli / Executive Board Member

Personal Mail samihy@cadem.com.tr

Interests

- Electric Vehicles
- Motors for Electric Vehicles
- Motors and Generators
- Electric Vehicles Motor Driver
- Powertrain
- Battery Pack of Electric Vehicles
- Battery Management Systems
- Embedded Software
- Composite Materials
- Innovative Materials
- Passenger Comfort
- Door Closing Effort
- NVH Improvement
- Thermal Management: UV
- Module Design & System Design
- · Brake Technologies
- Electric Harness
- Vehicle Dynamics
- · Vehicle Testing
- Autonomous Vehichle Technologies
- AR Technologies & Applications
- Distant Repair and Maintanance
- Computer Vision
- Computer Graphics
- Gamification & Serious Gaming

Capabilities

- Electromagnetic Design of Motors and Generators
- Prototype Production of Electric Machines
- Testing of Motors and Generators
- Design of Power Electronic Circuits
- Creating Schematic and PCB
- Testing of Power Electronic Circuits
- Embedded Software Design
- Simulation of Electric Machines
- Simulation of Power Electronic Circuits
- Analysing Electric Vehicles
- Determining Electrical Requirements of an Electric Vehicle
- Simulation of Powertrain of Electric Vehicle
- Design of Battery Management Systems
- Producing Battery Packs of Electric Vehicles
- Thermal Analysis of Electric Machines
- Thermal Solutions of Power Electronic Systems
- Concept Development and Styling
- 3D Modelling, Interior/Exterior Parts
- Engineering Design
- Co-design, Tailor Made, Inhouse
- Virtual Product
- Model and Prototype
- Validation and Verification



- Profile Performance Test, Inhouse
- Profile Performance Test, Inhouse
- Asissted Distant Repair & Maintenance
- Expert asissted remote repair and maintenance
- Automated and/or Prepared scenario based Asisstance
- AR Applications
- Design review and modifications
- Gamification & Simulation
- IOT integrated control & observation systems for shop floors
- VR Applications
- Training on Near Real Environments
- Gamification & Simulation
- Showcasing & Demonstration of Real Products

Cluster Opportunities

Battery Pack of Electric Vehicle
 Battery Management System
 Electric Motor and Driver of Electric
 Vehicle

Autonomous Vehichle Technologies Electric Vehicle Technologies











Cavo Otomotiv Ticaret ve Sanayi A.Ş.

Commodity Group

Command Cables and Mechanisms, Safety Products, Plastic and Metal Parts

Location

HQ and Production Site: TOSB - 1. Cadde, 15. Sokak No:3

PK: 41420 Cayırova - Kocaeli / Turkey

Phone: +90 262 754 75 12 Fax: +90 262 754 75 13

Production Site / Capacity

Bowden Cables: 12.000.000/year Spare wheel Winch Mechanisms:

1.500.000/year

Parking Brake Mechanisms:

2.500.000/year

Passive Safety Products:

18.000.000/year

Website

www.cavo.com.tr

Contact Person

Gürcan Üçkardeş / R&D Managerr

Personal Mail

gurcan.uckardes@cavo.com.tr

Interests

- Lightweight Al & Mg alloy solutions
- Plastic injection & Engineering Plastics
- Stamping
- Assembly with automated lines
- Composite materials
- Automotive Bowden cables
- · Automotive heavy duty cables
- Spare wheel winch mechanisms
- Parking brakes

Capabilities

• OEM Full service supplier

Design and Production Capabilities

- Progressive Stamping tools
- Molds for plastic injection and overmoulding
- Molds for Zamak Die Casting
- Forging and crimping tools
- · Assembly and control fixtures

Engineering Design

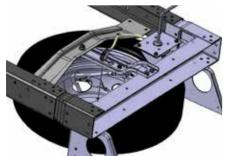
- CAE analysis
- Topology Optimization
- FEA

Laboratory capabilities include:

- Climatic Chamber
- CMM
- IZOD Impact Strength
- Melt Flow
- 100 kN pull-off
- Salt Spray
- Tensile Strength
- Surface Measurement
- Life Cycle&Durability

- Mechanisms (Parking Brakes, Winchs, Latches, Jacks ...)
- Passive Safety Products
- Cables bowden&heavy
- Electronics







Cengiz Makina

Commodity Group
Automotive

Location

TOSB TAYSAD OSB 3. Cadde No: 22 41420 Şekerpınar/Gebze/Kocaeli

Phone: +90 262 658 12 20 Fax: +90 262 658 12 28

Website

www.cengizmakina.com.tr

Contact Person Sükrü Gizem / Engineering and R&D Director

Personal Mail sgizem@cengizmakina.com.tr

Interests

- Parts for Diesel Injection System
- Engine Parts for Automotive Industry
- Parts for Vehicle Steering System
- Parts for Heavy Commercial Vehicles Combustion Engines
- Automation Technologies
- Cryogenic Machining
- Cutting Tool Manufacturing
- Industry 4.0
- 3D Modelling

Capabilities

Manufacturing

- Precision Machining
- Visual Control Systems
- Robotic System Design

Prototype Design

- 3D Design
- Hydraulic, Pneumatic and Electrical Design

Software Technologies

- PLC Programming
- Robot Programming

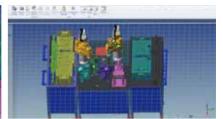
- Fuel Injection Systems
- Electrical Vehicles





























CMS Jant ve Makina Sanayii A.Ş.

Commodity Group
Aluminum Alloy Wheels

Location

A.O.S.B. 1006/1 Sk. No : 12, 35620 Çiğli / İZMİR

Headquarters

CMS Jant ve Makina Sanayii A.Ş. Kemalpaşa Cad. No: 302, 35060 Pınarbaşı / İzmir A.O.S.B 10006/1 Sk. No: 12, 35620 Çiğli / İZMİR

Branches

CMS Jant Sanayii A.Ş. Erkut Sk. No: 11 Ege Serbest Bölgesi Gaziemir - İzmir

CMS Automotive Trading GmbH SAP-Allee 2, Gewerbepark D-68789 St. Leon-Rot Germany

Phone: +90 232 399 11 00 Fax: +90 232 399 11 11

Production Site / Capacity 9 Million

Website

www.cms.com.tr

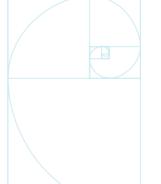
Contact Person

H. Emre Çubuklusu / R & D Manager

Personal Mail ecubuklusu@cms.com.tr

Interests

- Aluminum and Alloys
- Low Pressure Die Casting
- Light Alloy Wheel
- Aluminum Alloys Wheel Production
- Grain Refinement
- Innovative Wheel Production System
- Flow Form Production Technique
- Pad-Printing Technique
- Laser Engraving Technique
- Simulation Applications
- Heat Treatment Process
- Improvements of Metallurgical and Mechanical Properties of Aluminum Alloys





Capabilities

Development and Design

- 3D Modelling and Design
- Developer of OEM Products

R & D

- Casting Simulations
- Finite Element Analysis
- Energy Efficiency Projects
- Light Metal Alloys

Production System

- Low Pressure Die Casting
- Flow Form Technique
- Padprinting Technique
- Laser Engraving Technique
- Heat Treatment Process
- Machining and Painting Plant

Validation and Verification

- Mechanical Tests
- Metallurgical Tests
- ZWARP Test

Cluster Opportunities

• Aluminum Alloy Wheel Production

















Coşkunöz Kalıp Makina San. ve Tic. A.Ş.

Commodity Group

Automotive Sheet Metal Part Process /
Die Design and Manufacturing
Product&Process&Die Analysis

Location BURSA

Headquarters & Branches Addresses
Fethiye OSB Mah. Sarı Cad. No:1 16140
Nilüfer - Bursa / TURKEY

Phone: +90 224 280 06 00

Fax: +90 224 243 19 11

Production Site / Capacity 310.000 p.h. / year

Website

http://www.coskunozholding.com.tr http://www.coskunozkalip.com.tr

Contact Person
Volkan Akıncı / R&D Director

Personal Mail vakinci@coskunoz.com.tr

Interests

- Full Service Supplier
- Metal Forming
- Industry Wide New Products
- New Technologies
- Advanced Manufacturing
- Additive Manufacturing
- Module Design & System Design
- Composite Materials
- Innovative Materials
- Intelligent Materials
- Joining Technologies
- Energy
- Sustainability
- · Weight Reduction
- Cost Reduction
- Lightweight Materials

Cluster Opportunities

- Chassis Components
- Crash Components
- Body In White
- Process Design
- Engineering
- Design & Validation
- Die Manufacturers

Capabilities

Lightweighting

- Magnesium
- AluminumComposite

Joining Technologies

- · Laser Welding
- Friction Stir Welding
- Dissimilar Joining

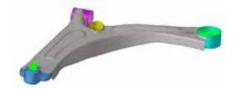
Engineering Design & Validation

- Fatigue Simulation / Testing
- Welding Simulation
- Topology Optimization
- Die and Tool Design
- Co-Design

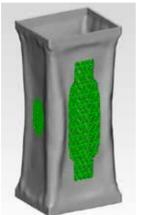
Concept Development and Styling

- Rear Axle
- Control Arm
- Subframe
- Crash Box
- Bumper Beam
- Shock Tower
- Cross Car Beam / Ip Beam
- Biw (Doors-Hood-Tailgate-Pillars Etc.)
- Full Service Supplier
- Benchmarking





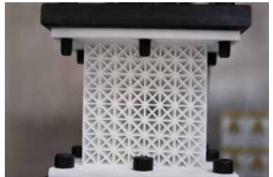












CPS Pressform A.Ş

Commodity Group
Automotive

Location

Çayırova - KOCAELİ

Headquarter

CPS Pressform San. ve Tic. A.Ş. TOSB Taysad Org. San. Bolg. 1. Cad. 16. Sk. No.: 1, 41420 Çayırova - Kocaeli / TURKEY

Branch

CPS Kalıp Fabrikası A.Ş. Sekerpınar Mah. Marmara Geri Donusumculer Sanayi Sitesi

Turgut Sokak No: 9 (416 Ada, 18. Parsel) 41420 Çayırova - Kocaeli / TURKEY

Phone: +90 262 674 44 50 Fax: +90 262 674 44 75

Production Site / Capacity

17.000 Meter Square Closed Area,157 employees

Website

www.cpsform.com

Contact Person

Tolga Şimşek / R&D and Engineering Leader

Personal Mail

tsimsek@cpsform.com

Interests

- Sheet Metal Parts
- Aluminium Body Parts
- Brake System Parts
- Seat Steel Components
- Aluminium Heatshields
- Sheet Stamping and Forming Tools

Cluster Opportunities

- Automotive Body Components
- Automotive Brake System Components
- Automotive Seat Components

Capabilities

Production and Manufacturing:

- Sheet Metal Stamping and Forming (Progressive, Transfer, Tandem)
- Automatic and Manuel MIG&MAG Welding, Laser Welding, Spot Welding
- 2D Laser Cutting
- Stamping Tool Design and Manufacturing
- Inhouse Prototyping

Computer Aided Design:

- Tool Design
- 2D&3D Modelling
- CAD-CAM
- Simulation and Analysis

Laboratory Capabilities:

- CMM
- Tensile Testing Device
- Hardness Tester
- Welding Seam Quality Test
- Ultrasonic Test



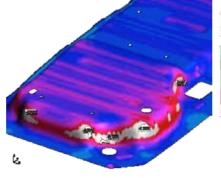


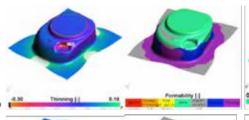


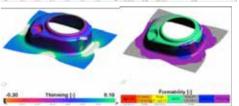


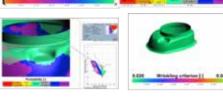


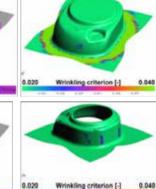


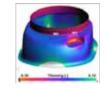












Çelik Halat ve Tel Sanayi A.Ş

Commodity Group
Steel Wire Rope, Prestressed Concrete
Strand and Spring Wire

Location

Kocaeli / TURKEY

Headquarters & Branches Addresses Ertuğrul Gazi Mahallesi, Şehitler Cad. No: 2, 41180 Kartepe / Kocaeli

Phone: +90 (262) 371 12 80 Fax: +90 (262) 371 51 15

Production Site / Capacity 70.000 tonnes / year

Website

www.celikhalat.com.tr

Contact Person

Mehmet Emin Akar

R&D and Technology Director

Personal Mail meakar@celikhalat.com.tr

Interests

- Crane Ropes
- Marine Ropes
- Mining Ropes
- Elevator Ropes
- Pre-streched Elevator Ropes
- Fishery Ropes
- Special Ropes (swage, compact)
- Prestressed Concrete Strand
- Mechanical Spring Wire (for Automotive Industry)
- Galvanized Wire
- EPIWRC Wire Rope
- Non Rotating Wire Ropes

Cluster Opportunities

- High Strenght Wire Rope Studies
- New Studies for Expanding Product Portfolio
- Alternative Raw Material Studies
 - New Testing Methods for Increased Durable Products
 - High Corrosion Resistant Wire Studies
 - 3D Modelling and Computer Aided Analysis Studies
- İnnovative Torque Test Bench Design
- Applications for Non Destructive Testing Methods
- Alternative Processes for Sheathed Wire Rope
- Chemical Cleaning and Regeneration
- Pre-Stretched Elevator Wire Rope
- Rotation Resistant Wire Rope
- Non-Rotating Wire Rope

Capabilities

Design Capability

- Product Development
- Engineering Design (Co-Design)
- Reverse Engineering
- Process Design

Engineering Capability

- Benchmarking
- Patent Literature
- Wire Rope Design
- Mechanical Sspring Wire Analysis
- Spring Design

Validation

- Tension Test
- Hardness Test
- Wrapping Test
- Metallographic Analysis
- Bending Test
- Torsion Test
- Rope Breakage
- Galvanized Coating Test
- Chemistry Laboratory
- Determination of Zinc Content
- Relaxation Test
- Cycling Corrosion Test

























Çemtaş Çelik Makine San. ve Tic. A.Ş.

Commodity Group
Special Steel & Stabilizer Bars

Location BURSA

Headquarters & Branches Addresses Organize Sanayi Bölgesi A.O.S. Bulvarı, No: 3 16140 Bursa / TURKEY

Phone: +90 224 243 12 30 Fax: +90 224 243 13 18

Production Site / Capacity
Steel Meltshop 180,000 ton/year
Rolling Mill 220,000 ton/year
Stabilizer bar 300,000 pcs/year

Website

www.cemtas.com.tr

Contact Person

İ. İrfan Ayhan / Deputy General Manager

Personal Mail iavhan@cemtas.com.tr

Interests

- · New special steel grades
- Lightweight steels for automotive parts
- HSLA steels Micro alloyed steels
- Dual phase steels
- Fatigue behavior of vehicle parts
- Cryogenic treatments
- Spring steels for vehicle suspension systems
- 3D Modelling
- · Heat treatment cycles
- Non-destructive testing methods for steel bars
- Improving mechanical properties of steel
- Improving steel cleanliness

Capabilities

Designing New Special Steel Grades

• Software: Thermo-Calc. TCFE8 Steels/Fe-alloys Database v8.0

Laboratory Scale Casting Line

• Induction furnace (10 kg) - Reduction with hydrolic press - Heat Treatment (if necessary) Controlled Cooling (if necessary) Sample preparation for Mechanical tests

Characterization

• Steel microstructure

Mechanical Tests

- Servotest Fatigue life testing machine (for stabilizer bar)
- Charpy Impact test, Tensile test, Hardness test, Jominy-Hardenability test

Non-Destructive Tests

Engineering Design

- CAD/CAM/CAE software
- FEA software

Cluster Opportunities

Applications for Automotive, Defense and Aerospace Industries

- New steel grades
- Lightweight steels
- Improving mechanical properties





















Diniz Adient Oto Donanım Sanayi ve Ticaret A.S.

Commodity Group Automotive Seat Systems and Components

Location

Nilüfer - Bursa

Headquarters & Branches Addresses Diniz Adient: Organize Sanavi Bölgesi Sarı Cd. No: 25 16140, Nilüfer/Bursa

Adin Oto Donanım: Bandırma O.S.B. Buğdaylı Taştepe Mevkii 4. Cadde No:6 Gönen/Balıkesir

Phone: +0224-2805400 Fax: +0224-2805444

Production Site / Capacity

14000 m² in total (4500 m² closed area) / 2000 Car Set Manufacturing Capacity per day

Web Site

www.dinizadient.com

Contact Person

Onur Keskin / R&D Manager Semih Erkul / R&D Engineer

Personal Mail onur.keskin@adient.com, semih.erkul@adient.com

Interests

- Passenger Comfort and Safety
- Seating Ergonomy
- Module & System Design
- Innovative Materials
- Industry 4.0
- Product Weight Reduction
- Safety Tests (Side Airbag, Metal Structure)
- 3D Printing
- NVH Improvement

Capabilities

New Product and Process Development Product Verification by Virtual Tests

- ECE R17 Luggage Retention Tests
- ECE R14 Seat Belt Anchorage Tests
- Energy Absorption Tests

Product Verification by Physical Tests

- Side Airbag Deployment Tests
- ECE R14 Seat Belt Anchorage Tests

Software Engineering

Manufacturing and Continuous Improvement

Prototyping

Project Management

Quality and System Engineering

- Automotive Seating
- Seat Components





Ditaş Doğan Yedek Parça İmalat ve Teknik A.S.

Commodity Group Steering and Suspension Parts

Location NİĞDE / TURKEY

Headquarters & Branches Addresses

İstanbul Office

Kuştepe Mah. Mecidiyeköy Yolu Caddesi No:12 Trump Towers Kule 2 Kat:34 34387 Sisli / İstanbul Phone: +90 212 997 0300

Fax: +90 212 997 0305

USA Office

Ditas America LLC 28 Valley Rd. Montclair, NJ 07042 Phone: +1-201-406-1981, +1-201-952-7365

Russia Office

Bld. 1 27A 2nd Yuzhnoportovyi Proezd, Moscow, 115432, Russia Phone:+7929 683 2231

Phone

+90 388 232 41 00

Fax

+90 388 213 20 26

Production Site / Capacity NİĞDE / 4.500.000 Units/Year

Web Site

www.ditas.com.tr

Contact Person

Mustafa Tas / R&D and Technology Director

Personal Mail mustafatas@ditas.com.tr

Interests

Steering Parts:

- Drag Link
- Rod End
- Stabilizer Link
- Track Control Arm
- · Ball Ioint
- · Axial Joint
- Pitman Arm
- Idler Arm

Suspension Parts:

- Torque Rod
- V Torque Rod

Cluster Opportunities

- Industry 4.0 Studies
- Alternative Lightweight Steel Materials
- Aluminium and Composite Material Studies
- Process Design by Servopress Applications
- Smart Material Studies
- NVH Testing and Verification
- System and Modular **Design Studies**

Capabilities

Design Capability

- Build to Print
- Co-Design
- Reverse Engineering
- 3D Modelling
- Process Design

Engineering Capability

- Benchmarking
- Patent Literature
- CAE on Design and Molding
- Mold and Tooling Design
- Lightweight Development by Aluminium
- Product Lifecyle and Project Management

Design Validation

- Fatigue/Wear/Elasticity/Torque Testing
- Lifetime Validation
- Corrosion Tests
- Prototype Production
- 3D CMM and ATOS Measurements
- Material Microstructure Analysis
- Hardness Measurement

Production

- Hot Steel Forging
- Cold Steel Forging
- Vulcanization
- Heat Treatment
- Tooling and Molding
- Machining
- Tube Swaging
- Paint and Surface Coating



teknolojiye yön veriyoruz





Dönmez Debriyaj San. ve Tic. A.Ş.

Commodity Group
Automotive Industry

Location

İzmir / Turkey

Headquarters & Branches Addresses

Fabrika: Atatürk Organize Sanayi Bölgesi 10039 Sok. No: 2 Çiğli - İzmir / Turkey

Telefon: +90 232 376 87 66

Fax: + 90 232 376 89 99 / + 90 232 376 87 69

İstanbul Satış Ofisi: İkitelli Organize Sanayi Bölgesi Dolapdere Sanayi Sitesi 24.Ada A Blok

No : 18 Başakşehir - İstanbul / Turkey

+ 90 212 549 91 07

+ 90 212 671 09 27

Hammer Clutch UK LTD

Address: Hammer Clutch UK LTD Unit 19 Maple Leaf Industrial Estate Bloxwich Lane

Walsall West Midlands WS2 8TF Phone: +44 01922 720910

Fax: +44 0870 170 9766

E-Mail: info@hammerclutch.co.uk

Hammer Kupplungen GmbH

Address: Hammer Kupplungen GmbH Schiessstrasse.43 40549 Düsseldorf / Germany

Phone: +49 7431 96 14 628 Fax: +49 7431 96 14 633

E-Mail: info@hammerkupplungen.com

Hammer Kupplungen Russian Federation

195220, Санкт-Петербург, Улица Гжатская, дом 22 корпус 4, Кв. 523

Phone +7 931 589 07 47

o.inon@donmezclutch.com

Phone: +90 232 376 87 66

Fax: + 90 232 376 89 99

Production Site / Capacity 10.000 m² / 150.000 kits per year

Website

www.donmezdebriyaj.com.tr

Contact Person

Ahmet Coşkun / General Manager

Personal Mail

A.Coskun@donmezdebriyaj.com.tr

Interests

- · Clutch Systems
- Driveline Components
- Powertrain Units
- Flywheels
- Release Bearings
- Sheet Metal Forming & Processing Technologies
- Manufacturing Technology
- Automation Systems
- Robotics Systems
- CAD ,CAM & CAE Technologies
- Test systems

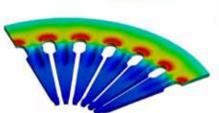
Capabilities

- Product and Process development
- Manufacturing & Assembling
- Prototyping
- FEA Analysis
- 3D & 2D Modelling
- In-house Tooling
- Aparat and Fixtures Design & Manufacturing
- Inhouse laboratory
- CMM 3D Measurement
- Micro-Structure Analysis
- Hardness Test
- Heat treatment
- Performance and Durability Tests In-house

- Automotive Industry
- Powertrain Systems
- Driveline Systems
- Transmission Systems







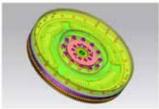




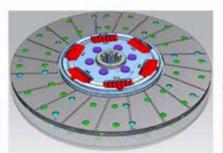














Ecoplas Automotive Ind. Inc

Commodity Group
Interior & Exterior parts for Automotive

Location

Gebze Industrial Zone

Headquarters & Branches Addresses Gebze Organize Sanayi Bölgesi, 1900 Sokak, No:1902 Gebze-Kocaeli

Phone: +90 262 677 10 10 Fax: +90 262 677 10 20

Website

www.ecoplas.com.tr

Contact Person

Cem YAPAREL / R&D Manager

Personal Mail cyaparel@ecoplas.com.tr

Interests

- Polymer Processing Technologies
- Thermoplastic Composite Processing
- Automotive Electronics
- · Weight reduction
- Cockpit HVAC Systems
- Automotive Register Co-Design

Cluster Opportunities

- Polymer Processing Technologies
- V2V, V2X Communication Technologies
- Lightweight design, production
- Thermoplastic Composites
- Automotive Electronics Applications
- Cocktip HVAC Technologies
- Low Current Power Transmission Technologies

Capabilities

Engineering Design and CAE Validation

- Siemens NX
- Catia V5
- Cradle Tetra
- Altium Designer
- Moldex3D

Physical Test Equipments

- Temperature & Climatic Chamber
- Ultrasonic Flowmeter
- Laser Assisted Flow Visulation
- FFT Frequency Analyser
- Register Fatigue Testing Device

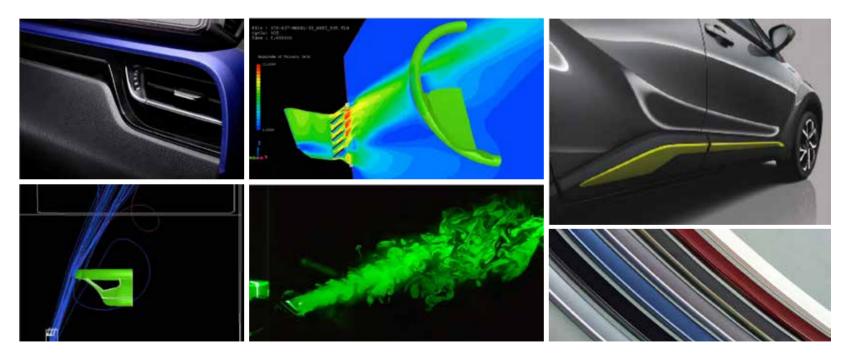
Polymer Processing Technologies

- Injection Molding
- 2K Injection Molding
- GMT Molding
- Painting (Interior&Exterior)
- Printing

Tooling (Mould design and manufacturing)







Ege Endüstri ve Ticaret A.Ş.

Commodity Group

Fabricated Axle Housing, Rear Axles, Tag Axles, Trailer Axles, Self Steering Tag Axle, Front Axles, Front Axle Components, Independent Suspension System, Suspension Systems

Headquarters & Branches Addresses

Headquarter (Plant 1)

Kemalpaşa Caddesi, No: 280, 35060 Pinarbasi - İzmir

Free Zone (Plant 2)

Akçay Caddesi 144/1 Semih Sokak No: 11 35410 Gaziemir - İzmir

Phone: +90 232 491 14 00 Fax: +90 232 491 15 15

Production Site / Capacity
35,000 m² / 300,000 Units

Website

www.egeendustri.com.tr

Contact Person

Onur BALCI / R&D Manager

Personal Mail onur.balci@egeendustri.com.tr

Interests

- Axle housing, tag axle and axle development
- Complete axle (front, rear, tag, steerable) development
- Independent suspension systems
- Suspension system development
- Weight reduction

Capabilities

Concept Development / Engineering Design

- Benchmarking
- 3D Modelling
- Simulation and Finite Element Analysis
- 2D design and product manufacturing drawings

Design for Manufacturing (Hot forming tools, welding and machining fixtures and other tooling)

Validation and Verification

- Axle fatigue Tests (Vertical and Side Skid Fatigue)
- Material tests (Hardness, Tensile, Impact)
- Metallography Laboratory (including spectrometer)
- · Salt spray test

- Axles, axle housings, trailer axles
- Independent Suspension System
- Suspension Systems
- Axle and suspension system components
- Weight reduction

Ege Endüstri



















Ege Fren Sanayi ve Ticaret A.Ş.

Commodity Group

Air Actuated Commercial Vehicle Brakes and Machining Parts

Location

Headquarters

7405/2 Sokak No: 4 Pınarbaşı 35060

İzmir - TÜRKİYE

Branches Addresses

Ege Serbest Bölgesi Kürşad Sokak No: 13 Gaziemir 35410 İzmir - TÜRKİYE

Phone: +90 232 397 36 00 Fax: +90 232 479 02 08

Production Site / Capacity 2.500.000 pieces / year

Website

www.egefren.com.tr

Contact Person

Taner Koç /

Deputy General Manager (Technical)

Personal Mail

taner.koc@egefren.com.tr

Interests

- Casting, Forging, Welding and Machining Technologies
- Assembly Lines and Robotic Technologies
- Machining Tools and Fixtures
- Engineering Tools and Softwares
- Lean Engineering and Manufacturing

Capabilities

- Reverse Engineering, Benchmarking and 3D Modelling
- Computer Aided Design, Engineering and Manufacturing
- Design Validation and Product Verification Tests
- Design and Manufacturing of Cast, Forged, Welded and Machined Automotive Parts

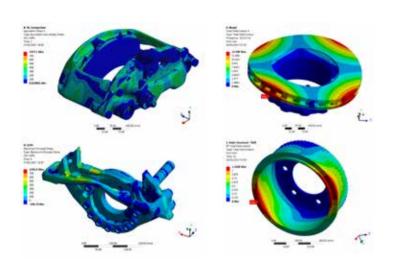
- Vehicle Manufacturers
- Axle Manufacturers
- Wheelend Component
 Manufacturers
- Chassis Component Manufacturers

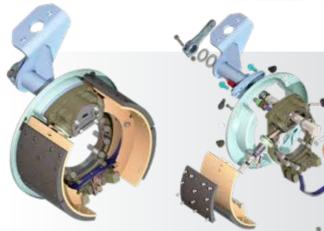


Ege Fren Bayraktar MERITOR













EKO Industry

Commodity Group

Automotive spare parts manufacturing (by cold forging method) DECATHLON (sports production)- IKEA (furniture production)

Location

IZMIR/TURKEY

Headquarters & Branches Addresses Kemalpaşa O.S.B 8 Sokak No:2 Kemalpaşa - İZMİR

Phone: +90 232 877 10 10 Fax: +90 232 877 10 09

Production Site / Capacity

Kemalpaşa - İZMİR / 5800 m² closed and 7500 m² open area.

Website

www.ekoendustri.com

Contact Person

Aysun Yolacan / Design Center Engineer

Personal Mail

ekotasarimmerkezi@ekoendüstri.com

Interests

Cold Forming

- Trail Automotive Sub-industry Parts
- Various rod head sleeves for automotive industry,
- Attachment component nuts at various diameters for construction industry,
- Various machine components for machinery industry,
- Production of Hydraulic System Parts in High Pressure Filters

Formalising of Metal

- Furniture accessorry design
- Sport equipment design
- Front Hood Frame Production of Heavy Commercial Vehicles

Capabilities

- CAD / CAE / CAM design programs
- 3D modeling and analysis
- Prototype design and production
- Test system design and production
- · High technologies
- Surface finishing
- Product and process development
- · Packing and Assembly
- Co-Design
- Full service supplier
- Tool & Mold Manufacturing Computer Aided Design
- Welding work for assembly parts
- Extensive Physical and Mechanical Testing (CMM, Crack Control, Surface Roughness, Tensile Strength, Metallic Microscope)

- Automotive Industry
- Production of automotive parts by cold forging
- The work parts production
- Production of accents of heavy commercial vehicles







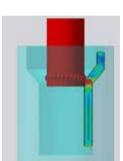


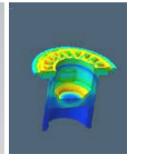












Ekol Logistics

Commodity Group
Order Management Company

Location İstanbul

Headquarters
Adil Mah. Ekol Cad. No: 2
Sultanbeyli / İstanbul

Phone: +90 216 564 30 00 Fax: +90 216 564 33 33

Production Site / Capacity
Order Management Company (Logistics)

Website

www.ekol.com

Contact Person

Erdem Özsalih / R&D Director

Personal Mail rand@ekol.com

Interests

- International Road Transportation
- Fleet Management Technologies
- Air and Sea Transportation
- Storage and Distribution Models
- Intermodal Transportation Services
- Ro-Ro Services
- Supply Chain Management
- Automation Systems/Technologies
- Contract Logistics
- Finished Vehicle Transportation
- Multi-Model Transportation Services
- Fair and Exhibition Logistics
- Project Transportation
- Warehouse Management
- Customs Clearance

Capabilities

- Design of Distribution Network and Business Models
- Fleet Optimization and Route Planning
- Cargo and Network Optimization
- Development of Warehouse Management
- Warehouse Design and Investment Planning
- · Capacity Planning
- Process and System Analysis, Improvement and Development
- Simulation Projects
- Order and Stock Management
- Intermodal Transportation
- Value Added Warehouse Operations
- Software Consulting
- Design of Automation / Mechanical Systems

- Automation Systems/Technologies/Equipments
- Route Optimization
- Vehicle Tracking Systems
- Big Data Analytics for Sustainable Logistics
- 3D Simulation

LOGISTICS 4.0



Elatek Kauçuk Sanayi Ticaret A.Ş.

Commodity Group
Automotive Supplier Industry

Location

Bursa / Frankfurt

Headquarters & Branches Addresses DOSAB Üçgül Sok. No:3 16245 BURSA/TÜRKİYE

Phone: +90 224 261 12 30 Fax: +90 224 261 13 00

Benzstraße 27 63110 Rodgau, GERMANY

Website

www.elatek.com.tr

Contact Person

Hüseyin GÖNÜLKIRMAZ

R&D Center Manager

Personal Mail
Hüseyin.gonülkirmaz@elatek.com.tr

Interests

- Rubber Hose Extrusion&Hose Production Technologies
- Plastic injection & Plastic Pipe Production Technologies
- Blow Moulding
- Thermoforming
- Metal pipe forming&Welding Technologies

Cluster Opportunities

Cooling System
 Air Charge System
 Air Duct System
 DPF system (Diesel Particylate Filter)
 SCR system (Selective Catalytic Reduction)
 Rubber injection & Seal Parts
 Fuel Filling System

Capabilities

Design& Simulation

- Co-Design
- 2D/3D Modelling
- Benchmarking
- Finite Element Method
- Computational Fluid Dynamics
- Project Management

Process & Manufacturing

- Prototyping
- Product & process development
- Mandrel & Fixture Design/ Manufacturing
- Developing Rubber Compounding

Validation & Testing

- Material & Performance Testing & Validation
- 3D measurement
- Testing Capability

Quality

• World Class Manufacturing

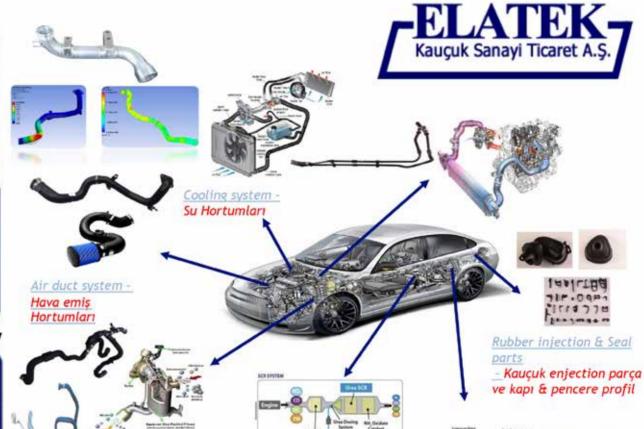
Elatek Bursa/Turkey





Elatek Frankfurt/ Germany





SCR System (Selective

Cattalyteic Reduction)

- SCR sistem Hortumları

DPF system (Diesel

Particulate Filter) -

DPF Hortumlari

Fuel Filling

Yakıt ve

Hartumlari

Havalandırma

System

Epsan Plastik Sanayi ve Ticaret A.Ş.

Commodity Group
Engineer Polymers
(PA6-PA66-PPA-PBT-PET)

Location
BURSA DOSAB

Headquarters & Branches Addresses

HQ-Epsan Plastik San. ve Tic. A.Ş.

Dosab Aos Cad No: 16 16369 Bursa / TURKEY

İstanbul Branch Office

Varyap Meridian 6 Toplu Yapısı Barbaros Mh. Mor Sümbül Sk. Meridian Business I Blok Kapı No: 1 Kat: 9 Daire: 117 34746 Ataşehir, İstanbul / TÜRKİYE

Epsan Free Zone Plant

Ata Mah. Serbest Bölgesi Gelincik Cad. No: 45 / 16600 Gemlik - Bursa / TURKEY

EPSAN Deutschland GmbH

Wandweg 44149 Dortmund Germany **Epsan Plastic Ibérica S.L.U.** c/ Muntaner 239, Ático

08021 Barcelona / ESPAÑA

Epsan Italy S.R.L.

Via Uberto Visconti di Modrone 11/15 20122 - Milano / ITALY

Phone: +90 224 261 2020 Fax: +90 224 261 2718

Production Site / Capacity 48.000 Ton / Year

Web Site www.epsan.com.tr

Contact Person

Ali KAYA / Business Development Manager

Personal Mail ali.kaya@epsan.com.tr

Interests

- Lightweight materials
- Electrical & Thermal Conductive Materials
- Food & Water Contact Compliant Materials
- Metal Replacement
- High Heat Resistance Materials
- Hydrolysis Resistance Materials
- Teflon & Carbon Fiber Reinforced Material
- Flame Retardant Materials
- Low-Friction MaterialsLaser Transparent Materials
- Polymers For Automotive Application
- Under the Hood
- Interior
- Exterior
- Powertrain

Capabilities

Validation and Verification

- Polymers performance Test, Inhouse
- Validation Testing, Equipment
- Calibration, Aging Validation

Engineering Design & Development

- Material Development, Tailor Made, Inhouse
- Compounding/Formulation

Material Variety

- Injection Moulding Polymers
- Blowmolding Polymers
- Extrusion Polymers

- Automitive Engineering Polymers
- White Goods And Household Polymers
- Defence & Aviation Polymers
- E & E Polymers













Ereğli Demir Çelik T.A.Ş.

Commodity Group
Iron & Steel Industry

Location Ereğli, Zonguldak

Headquarters & Branches Addresses Oyak Mining & Metallurgy Group Barbaros Mah. Ardıç Sok. No: 6 34746 Ataşehir / İstanbul

Phone: +90 216 578 80 00 +90 372 329 87 02 Fax: +90 216 469 48 10

Crude Steel Production 9.2 million ton/year

Website

www.erdemir.com.tr

Contact Person
Dr. Oğuz Gündüz / R&D Director

Personal Mail ogunduz@erdemir.com.tr

Interests

Raw Material & Ironmaking

- Sustainability of Natural Resources
- More Efficient Use of Energy & Raw Materials
- Reduction of Processing Cost
- Increase Productivity and Process Efficiency
- Recycling & Volarization of By-product & Wastes
- Ironmaking

Steelmaking & Casting

- Hot Metal Pretreatment
- · Basic Oxygen Steelmaking
- · Secondary Metallurgy
- · Continuous Casting
- Improvement of Steel Cleanliness
- Developing Process Models to Control and Enhance Iron and Steelmaking Processes

Hot Rolled Products & Processes

- Slab Reheating Furnaces
- Normalizing Furnace
- Plate Mill
- Hot Rolling Mill
- Heat Treatment
- Material Modelling and Alloy Development
- · Hot Rolled High Strength Steel
- Advance High Strength Steels (AHSS)
- Failure Analysis
- · Mechanical Test

Cold Rolled Products & Processes

- Tin Plate
- Galvanized/Galvannealed Sheet Steels
- Extra Deep Drawing Steel Grades
- High Strength Low Alloy Steels (HSLA)
- Advance High Strength Steels (AHSS)
- Automotive Industry
- · White Goods

Capabilities

Laboratories

- Raw Materials & Ironmaking Laboratory
- Material Characterization Laboratory
- Thermodynamic and Physical Simulations
- Metal Forming Laboratory
- Enemal Characterization Laboratory
- SEM Inclusion Analysis Laboratory
- Spectral Analysis ve X-Ray Laboratory
- Metal Forming Simulation Laboratory
- R&D Center Metal Working Laboratory
- Pilot Pyrolysis

Simulation Center

- Sinter Pot Grate Simulator
- RSM Furnace
- Vacuum Induction Melting Furnace
- Hot-Dip Galvanizing Simulator
- Cold Rolling Simulator
- Hot Rolling Simulator (2019)
- Coke Test Furnace (2019)

Industrial Trials of:

- Hot Metal Pretreatment
- Basic Oxygen Steelmaking
- Second Metallurgy
- Continous Casting
- Hot Rolling
- · Cold Rolling
- Coating

- New Steel Grades
- Lightweight Steels
- Improving Mechanical Properties of Steel
- Process Development of Metal Forming
- Automotive Industry
- Sustainability
- Waste Management
- Iron & Coke Making



















Erenli Rubber and Plastic Industry

Location

IZMIR TURKEY

Headquarters & Branches Addresses Gazi Bulvair No:185 Kemalpaşa Izmir

Phone: +90 0232 877 08 08 Fax: +90 0232 877 08 16

Production Site / Capacity 3000 tones

Web Site

www.erenli.com.tr/eng_index.php

Contact Person

Erçin Şahin General Manager Gökçe Bakiler

Composition / Mixture Development Manager

Personal Mail

ercin.sahin@erenli.com.tr, gokce.bakiler@erenlirubber.com

Interests

- Composite Materials
- · Polymer Materials
- Rubber Materials
- Innovative Materials
- Automotive Industry

Capabilities

Composition / Mixture Development

- Compunding, Formulation
- Material Testing, Dynamic Testing

Product / Process Development

• Benchmarking, Prototype Manufacturing

Software and Automation

• SAP

Mold / Apparatus / Machine Development

· Toolshop, Design

- Rubber Hoses
- Turbocharge Hoses
- Fuel and Oil Hoses
- Coolant Hoses
- Radiator Hoses





Ermetal A.Ş.

Commodity Group
ERMETAL COMPANIES GROUP

Location

Bursa / TURKIYE

Headquarters & Branches Addresses DOSAB 1. Nilufer Sk. No:5 16110 Bursa / TURKEY

Phone: +90 507 980 20 00 Fax: +90 224 261 01 89

Website

www.ermetal.com

Contact Person

Mehmet Gökçedağlıoğlu / R&D Manager

Personal Mail

mehmet.g@ermetal.com

Interests

- Sheet Metal Forming
- Welding (Spot, Projection, Arc, MIG)
- Steering Wheel Column Assembly (Telescopic)
- Control Arm
- Cross car beams
- Crash Box/ Bumper Beam (Front/Rear)
- Hinges
- · Oil Pan
- Seating Frames
- Metal Polymer Parts for OEM automotive customers
- Metal and polymer parts for office furnitures
- Co-Design
- Composite materials
- · Additive manufacturing

Capabilities

Production and Manufacturing

- Automated Sheet Metal Forming (High Strength Steels Included)
- Automated Welding (Spot, Projection, Arc, MIG)
- Die/Mold/Control / Assembly Fixture Manufacturing
- Cold Forming, Assembling (Welded or Mechanical Assemblies)

- Laser/Wire Cutting
- Project Management and prosess development

Engineering Design

- Die/Mold Design, control / sssembly fixture design
- Special Purpose Test Instruments
- Simulation, Static Analysis (Ansys, Autoform, Dynaform)
- CAD/CAM

Model And Prototype

- Detailed Cost Analysis
- · Rapid Prototyping

Test/Measuring/Laburatory Capabilities

- Tensile Strength, hardnes test, micro structure
- Climatic Chamber
- Test Laboratory for Polimer Products
- Offise Furniture Test Laboratory
- Destructive / Non-Destructive Testing

- Die Manufacturing (Body/Chassis Components)
- Engineering
- Process Design
- IIoT, Industry 4.0





Ersan Kauçuk

Commodity Group

Moulded Rubber parts and Moulded

Metal-bonded Rubber parts

Location

Tuzla - İSTANBUL / TÜRKİYE

Headquarters & Branches Addresses ERSAN KAUÇUK SAN. VE TİC. A.Ş. Orta Mah. Üniversite Cad. No:11 34956 Tuzla - İstanbul

Phone: +90 216 304 24 44 (PBX)

Fax: +90 216 304 24 71

Production Site / Capacity
20.000 m² (12.000 m² closed area)

Wehsite

www.ersankaucuk.com

Contact Person

Rahmi Gürkan Yıldız / R&D Manager

Personal Mail ryildiz@ersankaucuk.com

Interests

- Composite Materials
- Innovative Materials
- Intelligent Materials
- Passenger Comfort
- NVH Improvement
- Industry Wide New Products
- · Attachment & Assembly

Technologies

• Thermal Management: UV

Stability

- Module Design & System Design
- Recycling Technologies

Cluster Opportunities

- · Spring isolators
- Exhaust mounts
- Stab bar bushes&brackets
- Suspension bushes
- · Bellows, hoses, gaskets, grommets
- Engine, body and gearbox mountings, bushings,
- Suspension cushions, various anti-vibration parts

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking,
- 3D Modelling, Interior / Exterior Parts / Functional parts

Engineering Design

- · Co-design, Tailor Made, Inhouse
- Compounding/Formulation
- Material Modeling
- Nonlinear problem solution

Virtual Product

- Dampers/Isolators
- · Antivibration and shock mounts

Model and Prototype

- Inhouse Tooling, Inhouse Prototype
- Manufacturing

Validation and Verification

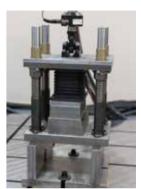
- Profile Performance Test, Inhouse
- Validation Testing
- Aging Validation

















Estaş Eksantrik San. ve Tic. A.Ş.

Commodity Group

Camshaft production

Location

Şeyhşamil OSB. Halis Vermezoğlu Cad. No: 57 58060 Merkez / SİVAS

Phone: +90 346 218 12 20

Fax: +90 346 218 12 31

Production Site / Capacity

Center / Sivas / Turkey
4,000.000 piece / year Steel camshaft
production

20.000 tone/year Casting camshaft production

production

Website

www.estas.com.tr

Contact Person

Fatih Özaydın / R&D Center Management Bahadır Karaca / R&D Center Coordinator

Personal Mail

fatih.ozaydin@estas.com.tr bahadir.karaca@estas.com.tr Interests

- Steel camshat
- Casting camshaft
- Assembly camshft
- Fuel pump shaft
 Balance shaft
- Rocker shaft
- Rocker shart
 Rocking hammer
- Cam follower
- Powder metallurgy
- Forged steel
- Gears
- Assembly parts (pin-stopper)
- Medical prosthesis (Tumor-Trauma-Spinal)
- Arthrosis prosthesis (shoulder-hip-knee-elbow)
- Dental implants

Technologies

- · Sand mold casting
- Chilled Casting Technology
- Ductile Iron Casting Technology
- Machining
- Robot Technology
- Pattern Technology

Stability

- Module Design & System Design
- Weight Reduction Technology
- Manufacturing Technology
- Cylinder Of Demand of Camshaft
- Composite Camshaft
- Aluminium Camshaft
- Surface Coatings
- Energy Systems

Capabilities

Concept Development and Styling

- 3D Modelling, 3D Printing, 3D Scanner
- Full Service Supplier, Benchmarking

Engineering Design

- Co-design, Profile design, Camshaft design
- Simulation and Analysis (Novacast-Esprit-ANSYS-Solid-Catia)
- Materials requirements, External surface treatment
- Heat Treatment Engineering
- Hybrid Vehicle Camshaft Engineering

Model and Prototype

- Machining technologyCasting technology
- Manufacturing Ductature
- Manufacturing, Prototype production

Validation and Verification

- Engine performance tests
- Calibration
- · Validation Testing, Equipment
- Anodic Oxidation
- Wear test, fatigue test, tensile test, tork test, microstructure analysis

Machining production capacity

- Casting and steel camshaft
- Composite Camshaft
- Aluminium Camshaft
- Gears, Assembly parts (pin-stopper), Powder metallurgy
- Medical prosthesis (Tumor-Trauma-Spinal)
- Arthrosis prosthesis (shoulder-hip-knee-elbow)Dental implants















Farplas

Commodity Group
Interior&Exterior Trims

Location
Gebze, Kocaeli Turkey

Headquarters & Branches Addresses Phone: +90 262 679 65 00

Fax: +90 262 679 65 54

Website

www.farplas.com

Contact Person

Iffet İyigün Meydanlı / R&D and
Innovation Director

Personal Mail i.meydanli@farplas.com

Interests

- Plastic processing technology (injection molding technology)
 Lightweighting solutions
- Composite materials
- Industry 4.0
- Connectivity

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking,
- 3D Modelling, Interior/Exterior Parts

Engineering Design

- Co-design, Tailor Made, Inhouse
- CAE analysis

Model and Prototype

- Tooling
- Rapid prototyping

Processing Technologies

 Injection Molding (Standard Injection Molding, Fiberform overmolding, Mucell, 2K injection molding, gas injection molding)

- Welding&Bonding
- Painting
- Assembly
- Process Simulations and Analysis (Moldflow, Moldex 3D)

Validation and Verification

- Profile Performance Test, Inhouse
- Validation Testing, Equipment
- Calibration, Aging Validation
- Polymer Analysis
- Physical and Chemical Coating Analysis
- Other
- Collaborative project management

- Connectivity of the cars
- Smart transportation
- Factories of the Future
- Lightweight design, and analysis, production
- Advanced plastic processing technologies
- Advanced material technology
- · Composite materials and processing

FARPLAS



Feka Otomotiv Mamulleri Sanayi ve Ticaret A.Ş.

Commodity Group
Automotive Supply Industry

Location

Bursa/Turkey

Headquarters & Branches Addresses Organize Sanayi Bölgesi Ali Osman Sönmez Blv. No:13/B, 16140, Bursa, TÜRKİYE.

Phone: +90 224 243 86 00 Fax: +90 224 243 04 66

Production Site / Capacity
23.000 m² / 893 Employees

Website

www.fekaautomotive.com

Contact Person

Taner KARSLIOĞLU /

Deputy General Manager - Technical Group İrfan KAMAŞ / R&D Manager

Personal Mail

taner.karslioglu@fekaautomotive.com irfan.kamas@fekaautomotive.com

Interests

- Polymer Materials
- Technologies
- Injection Mold
- Welding (Ultrasonic, Vibration, Hot Plate)
- Metalization (Aluminum Metallizing)
- Assembly (Manual, Semi-Automatic,
- Full Automatic Assy Lines
- Test Validation

Capabilities

Concept Development and Styling

- Full Service Supplier
- Benchmarking

Engineering Design

- Co-Design (Mechanic, optic, electronic)
- Process Design
- Injection Mold Design
- CAE Analysis

Model and Prototype

- 3D Printing
- Moldshop in house
- · Silicon Mold

Validation and Verification

- Photometry
- Thermal Testing
- Vibration Testing
- Corrosion Testing
- · Humidity Testing

- Melt Flow Testing
- Vickers Hardness Measurement Testing

Cluster Opportunities

Front Lighting System

- Head Lamp
- Side Indicator Lamp
- Day Time Running Lamp (DRL)
- Front Fog Lamp

Rear Lighting System

- CHMSL
- License Plate Lamp
- · Rear Reflector
- Rear Fog Lamp
- Direction Indicator Stop& Position Reversing Lamp

Interior Lighting Systems

- Luggage Lamp
- Inner Roof Lamp
- Vanity Lamp

Rear View Systems

- Exterior View Systems
- Interior View Systems

Tank Systems

- Steering Hydraulic Oil
- Water Expansion

Trim Parts

- Dashboard Parts
- Air Vents
- Windows Winders
- Liftgate Handle with License Plate Lamps



Ferro Döküm

Commodity Group

Cast iron producer

Location

Cumhuriyet Mah. 2253 Sk. No:13 41400 Gebze - Kocaeli / TURKEY

Phone: +90 262 653 42 60 Fax: +90 262 653 41 60

Production Site / Capacity

Annual capacity of 80000 tons 38500 m² covered area 65000 m² total area white collar / 141 blue collar / 473

Web Site

www.ferrodokum.com.tr

Contact Person

Mehmet Ragip Muhaffel / R&D Chief Tekin Örnek / R&D Manager

Personal Mail

ragip.muhaffel@efesan.com.tr tekin.ornek@efesan.com.tr

Interests

- Ferroous Alloy
- Green Sand Casting
- Horizontal&Vertical Moulding lines
- Magnesium Tretmant
- Casting Simulation
- Brake Disc
- Bracket
- Flywheels
- Manifolds
- Ductile iron crankshaft
- Improvement of metallurgical and mechanical properties of cast iron
- High Silicon Nodular cast iron

Cluster Opportunities

- Lightweight materials
- Automotive spare parts
- · Defence and construction sector
- · Steel casting
- · White cast iron

Capabilities

Development and design

- 3D modelling and design
- Developer of OEM product
- Runner Design

R&D

- Casting Simulation(Magma soft)
- Ferrous Alloy
- Wear resist casting Alloys(white cast iron)
- Steel Casting
- · Resin bonded handmoulding

Production System

- · Green Sand casting
- · Shot blasting and Grinding
- Core Shop

Model and Prototype

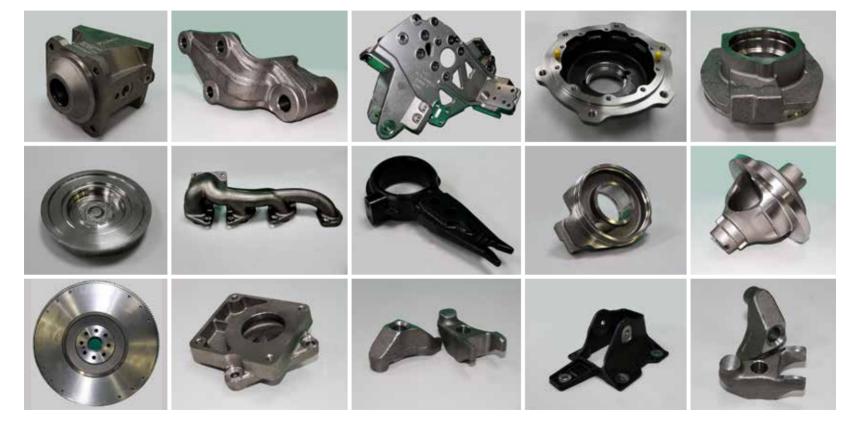
• Prototype production

Validation and Verification

- Mechanical test
- Metallurgical test
- X-ray İnspection







FİGES A.Ş.

Location

BURSA, ANKARA, İSTANBUL

Headquarters & Branches Addresses

BURSA Odunluk Mahallesi, Akpınar Caddesi, Green White Plaza No:5 / 7, 16110 Nilüfer / Bursa

İSTANBUL Teknopark İstanbul Sanayi Mahallesi Teknopark Bulvarı No:1 9.Blok Kat:5 Pendik 34912 – İstanbul

ANKARA Güzeltepe Mahallesi Ahmet Rasim Sokak No: 16, 06690 Çankaya - Ankara

Phone: +90 224 4428585 Fax: +90 224 4428586

Website

http://www.figes.com.tr/

Contact Person

Berrin Kayacan Özbilen Ar-Ge Merkezi Koordinatörü

Personal Mail berrin.ozbilen@figes.com.tr

Interests

- · Composite Materials
- · Impact / Crash Performance Evaluation
- · Lightweight Design / Design Optimization
- · Additive Manufacturing
- · Batteries
- · Internal Combustion Engines
- · Thermal Management
- · Vehicle Dynamics Modeling
- HIL Modeling
- · ECU/TCU
- · Hybrid, Electric Vehicles & Batteries
- · Software Verification
- · Connected Vehicle
- · Innovative Vehicle Technologies
- · Autonomous Vehicles
- · Manufacturing Process Simulation
- IoT

Capabilities

- · New Product Development
- Mechanical Design and Prototype Manufacturing
- · Structural Analysis
- · Optimization
- · Aerodynamics and Thermal Analysis

- · CFD and Reacting Flows
- Electromagnetic Analysis
- Mechatronics
- · System Modeling, Control & Automation
- · Multibody Dynamics
- · Vehicle Dynamics and Stability Control
- · Software Verification and Certification Tools
- · Embedded Programming
- Plastic and Metal Parts Manufacturing Process Simulation

- · Simulation Driven Product Development
- · High Level Numerical Analysis
- Multiphysics
- Innovative Products
- · Additive Manufacturing
- Man-Machine Interface
- · Electric Vehicles
- · Battery Development
- · Control Software Development
- Internal Combustion Engine Technologies
- · Energy Storage Systems
- Electric Motors, Drives and Actuators
- Autonomous Vehicles





FKT Koltuk Sistemleri Üretim ve Dağıtım San. ve Tic. A.Ş.

Commodity Group
Automotive Seating Systems

Location Bursa / Türkiye

Headquarters & Branches Addresses

305. Sok. No:1 16140 -NOSAB Bursa / Türkiye

Phone: +90 224 294 60 00 Fax: +90 224 294 60 29

Web Site

https://www.fkt.com.tr

Contact Person Emin Sezgin / R&D Manager

Personal Mail info@fkt.com.tr

Interests

- Ergomechanics Solutions
- Lightweight Materials
- Innovative Solutions
- · Safety and Comfort
- Technical and Material Research
- Assembly Technologies
- Lightweight Application and Design
- Automotive Seating

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking
- 3D Modelling

Engineering Design

- Co-design(Catia)
- FEA Calculation (Catia)

Model, Styling and Prototype

• Inhouse Prototype, Inhouse Tooling

Validation and Verification

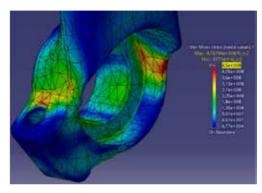
- Functional Tests Laboratory
- Validation Tests
- Homologation Tests

- Seating Systems
- Lightweight System Development

fkt













Grammer Koltuk Sistemleri San. A.Ş.

Commodity Group
Automotive Seating Systems

Headquarters & Branches Addresses

Headquarters: Grammer AG Georg - Grammer Str.2 92224 Amberg - Germany

Bursa Plant: Grammer A.Ş. Alaşar OSB, Mustafa Karaer Cad. No: 38 16369 Osmangazi - Bursa

Phone: +90 224 219 30 00 Fax: +90 224 219 77 28

Website

www.grammer.com

Contact Person
Altan Polat / R&D Manager

Personal Mail altan.polat@grammer.com

Interests

- Ergomechanics Solutions
- Composite Materials
- Lightweight Materials
- Innovative Solutions
- Seat Electronic Systems
- Safety and Comfort
- Technical and Material Research
- Assembly Technologies

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking
- 3D Modelling

Engineering Design

- Co-design
- Finite Element Analysis

Model, Styling and Prototype

- Inhouse Prototype
- Inhouse Styling
- Inhouse Tooling

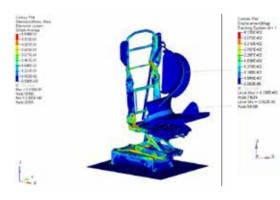
Validation and Verification

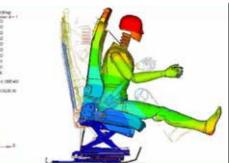
- Material Tests
- Performance Tests
- · Validation Tests
- Homologation Tests

Cluster Opportunities

Seating Systems

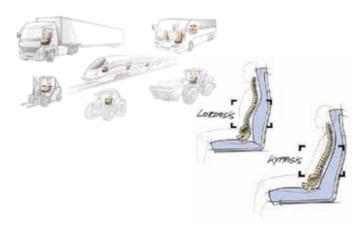
















Haksan Otomotiv Mamülleri Sanayi ve Ticaret A.Ş.

Commodity Group
Rubber and Plastic Parts

Location

Bursa

Headquarters & Branches Addresses Organize Sanayi Bölgesi Sarı Cad. No:10/A 16140 Nilüfer / Bursa

Other plants

Haksan Manisa Haksan Rubber Russia

Phone: +902244111134 Fax: +902244111143

Production Site Bursa

Website

www.haksanotomotiv.com

Contact Person Ünal ÇEVİK / R&D Manager

Personal Mail unal.cevik@haksanotomotiv.com

Interests

- Automotive Sealing Systems
- Automotive Air Intake Systems
- Automotive Turbo Systems
- Automotive Body Components
- Automotive Latches Systems
- Automotive Brake Systems
- Automotive Turbo Hoses
- Home Appliances
- Engineering Structures
- Energy Systems
- Rail Systems
- Rubber Elastomers
- Thermoplastic Elastomers
- Recycling

Cluster Opportunities

- Automotive Rubber&Plastic Parts
- Home Appliance Rubber&Plastic Parts
- Rail Systems
- AeroSpace

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking
- 3D Modelling in NX, Catia

Engineering Design

- Co-design, Tailor Made, Inhouse
- Compounding/Formulation, Inhouse

Model and Prototype

- Inhouse Tooling, Inhouse Prototype
- Manufacturing

Validation and Verification

- 3D Laser Measurement
- · Laboratory, Inhouse
- Aging Validations
- Flame Resistance
- Fatique
- Brittleness, Glass Transistion
- Ozone Resistance (200 pphm)
- Cleanliness









Hatko Electronics

Commodity Group

Electrical Contacts, Terrminals, Plastic Housings and Electrolytic Plating

Location

Istanbul / Turkey

Headquarters & Branches Addresses Üniversite Mah. Firüzköy Yolu Bağlar Mevkii No: 52 Avcılar / Istanbul

Phone: +90 212 591 35 20 Fax: +90 212 591 76 91

Production Site / Capacity
Istanbul / 2 Billion Pieces / Year

Website

www.hatko.com

Contact Person

Hatice Hataylı Han / Board Member and Sales&Marketing Manager

Personal Mail sales@hatkoelectronics.com

Interests

- Precision Metal Stamping
- Selective Surface Treatment
- Plastic Injection
- Precision Tool Development and Manufacturing
- Reel-to-Reel Electrolytic Metal Plating (Selective)
- Crimp Technologies

Cluster Opportunities

- · Terminals and Connectors
- Electrolytic Metal Plating (Selective)
- Applicators and Spare Parts
- Household Industry Parts
- Automotive Industry Parts
- Energy Industry Parts
- Wire Harnessing

Capabilities

Product and Process Development

- New Product Design (Solidworks, Creo)
- Progressive Precision Stamping Tools
- Moulds for Plastic Injection
- CAD, CAM and CAE Technologies
- Reel to Reel Electrolytic Metal Plating Process Development

Prototype Production

• Inhouse Prototype Manufacturing

Valitation and Verification

- IATF 16494 Quality Management System
- Inhouse Mechanical and Electrical Performance Tests
- TÜV Certified Laboratory
- UL, VDE and TÜV Certified Products

Production

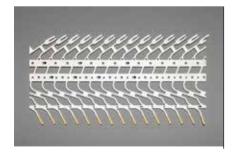
- Terminals and Connectors
- Precision Metal Stamping
- Plastic Injection
- Electrolytic Reel -to-Reel Plating
- Progressive High Speed Tools
- Plastic Injection Moulds

















Heksagon Mühendislik ve Tasarım A.Ş.

Commodity Group

Design, Engineering Development, Design Validation&Verification, Model and Prototype Production

Location

TAYSAD Organize Snayi Bölgesi, 1. Cad. 15. Sok., No:7 Şekerpınar, 41420, Çayırova-Kocaeli/TURKEY

Headquarters & Branches Addresses

Head Office: Büyükdere Cad. İş Kuleleri 2. Blok K: 6 4. Levent, Beşiktaş - İstanbul R&D Center: TAYSAD Organize Sanayi Bölgesi, 1. Cad. 15. Sok., No: 7 Şekerpınar, 41420, Çayırova - Kocaeli / TURKEY

Phone: +90 262 673 21 00 Fax: +90 262 646 33 10

Production Site / Capacity Kocaeli, TURKEY 550,000 man hours / year

Website

www.hexagonstudio.com.tr/en

Contact Person

Murat Özkan / Managing Director

Personal Mail

murat.ozkan@hexagonstudio.com.tr

Interests

- Full Vehicle/Platform Development (Intercity and Urban Buses)
- Vehicle Variant Development (Bi-fuel variants, increased payload)
- Full Electric Range Extended Vehicle Development
- Agricultural Tractors Cab Design & Development
- Trucks Cab Design & Development
- Specialty Machinery Design & Development for Solid Waste Management
- Model and Prototype Manufacturing
- Vehicle Software Development

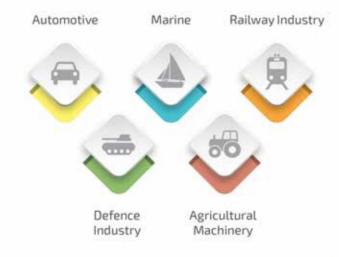
Capabilities

- Project Management
- Conceptual Design and Styling for Exterior & Interior
- Geometric Integration & Layout Design
- Human Ergonomic
- Detailed Engineering Design for Body Structure, Closures, Mechanisms, Chassis, HVAC & Exterior/Interior Trim)
- Engineering Development (Structural Durability, NVH, Fatigue Durability, Thermal and Aerosystems Engineering, Weight Optimization)
- Powertrain Integration and On-vehicle Validation
- Vehicle Control Firmware Development
- Functional Prototype Vehicle/System
 Manufacturing
- Testing and Physical Validation/Verification
- Road Load Data Acquisition
- Bench Tests
- Model and Mould Manufacturing for Soft Tooling (FRP hand lay-up)
- Scaled Model Manufacturing (1:5 / 1:10 models)
- Software Design and Validation Tests



- Composite Materials
- Advanced Engineering Metals
- Electric and Hybrid Vehicle (Green Vehicle)
- Vehicle Control
- Smart Mobility











Hema Endüstri A.Ş.

Commodity Group

Automotive Supply Industry

Location

Cerkezkoy - Tekirdag / TURKEY

Headquarter Office

Maslak - Istanbul / TURKEY

Production Site

Tekirdag / TURKEY, Pune / INDIA

Warehouses

Augusta / USA, Curitiba / BRAZIL, Felixstove / UK, Arnsberg / GERMANY

Representations

Peterborough / UK, Brescia / ITALY, Tehran / IRAN, Göteborg / SWEDEN, Seul / SOUTH KOREA

Purchasing Offices

Pune / INDIA, Hangzhou / CHINA

Phone: +90 282 758 10 40 Fax: +90 282 758 33 91

Capacity

Commercial Steering: 220,000 / year, Pumps/Motors: 500,000 / year,

Transmissions: 100,000 / year,

Valves: 250,000 / year,

Hydraulic lifts: 200,000 / year, Braking systems: 300,000 / year,

Axles: 250,000 / year.

Website

www.hemaendustri.com.tr

Contact Person

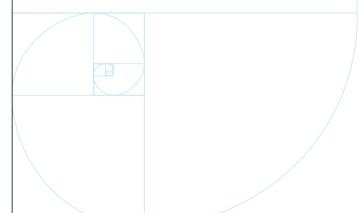
Aziz Asrak / Assistant General Manager, R&D

Personal Mail

azizasrak@hattat.com.tr

Interests

- Hydraulic Components
- Hydraulic System Design
- Powertrain
- Gear Manufacturing
- Engine
- Construction Machines





Capabilities

Research and Development

- Special designs for customer (Co-Designer)
- FEA and CFD Analysis
- Product Development
- Simulations and Controlling (Structural, Thermal, Dynamic, Electro-Mechanical)
- Gear Analysis and Powertrain Design
- Electronic Circuit Design, PCB Design, Programming
- 3D Modelling

Manufacturing

- In-house Tooling
- In-house Prototype

Validation and Verification

- Performance and Durability Tests In-house
- Semi-Anechoic Chamber for Measurement of Noise Level

Cluster Opportunities

- Hydraulic Pumps & Motors
- Transmission
- Hydraulic lifts and RCVs
- Valves
- Steering Systems
- Engine Components
- Powertrain applications
- Differential Assembly
- Gears & Shafts
- 4 Wheel Drive Tractor and Backhoe Loader Axles

Braking systems









İnci GS Yuasa Akü San. ve Tic. A.Ş.

Commodity Group
Starter and Industrial Battery

Location

Manisa

Headquarters & Branches Addresses Organize Sanayi Bölgesi 2. Kısım Gaziler Caddesi No: 6, 45030 Manisa

Phone: +90 0236 233 25 10 Fax: +90 0236 233 25 13

Production Site / Capacity
7 Million unit/year

Web Site

www.incigsyuasa.com

Contact Person
Sibel Eserdağ / R&D Center Division
Manager

Personal Mail seserdag@incigsyuasa.com

Interests

- Energy Storage Systems (Starter and Industrial Lead Acid Batteries)
- New Generation Batteries for Hybrid and EV vehicle applications
- Battery Management Systems
- Renewable Energy Sources

Capabilities

Product Development

Engineering Design

- Co- design
- 2D/3D Modelling

Prototype Product

• Inhouse Tooling, Inhouse Prototype Manufacturing, Pack and BMS applications

Laboratory

- Battery Performance Test Lab.
- · Chemical Test Lab.
- Material Characterizations Lab.
- Electrochemical Test Lab.
- Electronical and Data Acqusition Lab.
- Benchmarking Lab.

- Energy Storage Systems
- Advanced Lead Acid Batteries
- Advanced Automotive Batteries
- Industrial Batteries

INCIGSYUASA



İnka Yapı Bağlantı Elemanları Sanayi ve Ticaret A.Ş

Commodity Group Hangers, Supports and Clamps

Location

ISTANBUL/TURKEY

Headquarters & Branches Addresses İstanbul Anadolu Yakası O.S.B Gazi Bulvarı No:7 34953 Tuzla, İstanbul / TURKEY

Phone: +90 216 593 90 00 Fax: +90 216 593 90 15

Production Site / Capacity
10.000 sqm production area,
4.000 sqm warehouse

Web Site

www.inkafixing.com

Contact Person

Caner Erdoğan / Project Engineer

Personal Mail Caner.Erdogan@inkafixing.com

Interests

Automotiv

- Exhaust Clamps
- V- Band Clamps
- Band Clamps
- DIN 3016 Clamps

Construction/Building

- Installation Systems
- Modular Support Systems
- Ventillation Systems
- · Anchor and Fixing Systems
- Fire Fighting Systems

Capabilities

Concept Development and Styling

• 3D Modelling

Engineering Design

- 2D-3D Modelling
- Component Design and Development
- Solid FEA Analysis
- Pipe Stress Analysis

Model and Prototype

- Inhouse Tooling, Inhouse Prototype
- Inhouse Automation and Assembly Lines
- Manufacturing

Physical Test Equipments

- Load Test
- Hardness Test
- Dimension and Geometric Mesurement
- Coating and Corrosion Strength Test
- Welding Test

- Exhaust Clamps
- Filter Clamps
- DIN 3016 Automotiv Clamps





itelligence Bilgi Sistemleri A.Ş.

Commodity Group
Professional Services

Location

itelligence Türkiye Nidakule Ataşehir Kuzey İş Merkezi, Barbaros Mah. Begonya Sok. No: 3/A Ataşehir 34746 İstanbul iletisim@itelligence.com.tr

Headquarters & Branches Addresses Bielefeld, Germany

Phone: +90 216 600 0500

Production Site / Capacity
800 employees, 25 countries,
19 data center worldwide

Website

itelligencegroup.com/tr/

Contact Person

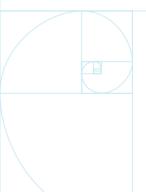
Banu Sezgin / Marketing Communications
Director

Personal Mail banu.sezgin@itelligence.com.tr

Interests Capabilities

- Innovative Technologies
- Incubation Hub
- Cloud Platforms & Technologies
- · Saas, Paas, Iaas

- SAP Industrial Solutions
- SAP Enterprise Solutions
- Artifical Intelligence
- Robotic Process Automation
- Data Intelligence
- User Interface
- IT Optimization
- Cyber Security
- Customer Experience
- Iot
- Blockchain







İzeltaş A.Ş.

Commodity Group
Hand Tools, Automotive

Location

Headquarters & Branches Addresses Kemalpaşa Cad. No:303 35070 Işıkkent - İzmir / TURKEY

Sütçüler Plant: Ankara Asfaltı Sütçüler Mah. Farbikalar Kümeevleri No: 3 35170 Kemalpaşa - İzmir / TURKEY

Phone: +90 232 472 13 75 Fax: +90 232 472 13 78

Website

www.izeltas.com.tr

Contact Person

Emre ARBAK / R&D Manager

Personal Mail emre.arbak@izeltas.com.tr

Interests

- Hot Forging
- Steels
- Non-metal materials
- Industry Wide New Products
- Technologies
- Innovative Materials

Capabilities

Concept Development and Styling

- Benchmarking
- 3D Modelling

Engineering Design

- Inhouse
- Finite Element Analysis

Model and Prototype

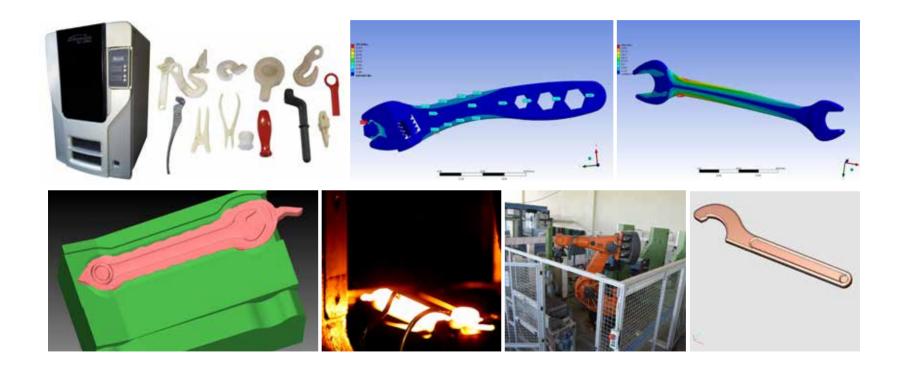
- Inhouse Tooling, Inhouse Prototype
- 3D Printing
- Manufacturing

Validation and Verification

- Performance Tests
- Validation Tests
- Calibration

- Hand Tools manufacturers
- Automotive parts manufacturers

©IZELTAS



Kale Balata Otomotiv San. ve Tic. A.Ş.

Commodity Group
Brake Pad & Lining Production

Location

Gebze / Kocaeli

Headquarters & Branches Addresses Cumhuriyet Mah. İstanbul Cad.

No: 3 Gebze / Kocaeli

Phone: +90 262 744 03 86 Fax: +90 262 744 03 89

Production Site / Capacity
14 million pcs

Web Site

www.kalebalata.com

Contact Person

Ozan Demirdalmış / R&D Director

Personal Mail ozand@kalebalata.com

Interests

- Brake Pad/Lining for CV's and Heavy Duty Commercial Vehicles
- Railway Brake Blocks and Pads
- Brake Pad/Lining for Armored Vehicles
- Aircraft Brake Materials
- Composite Tribology

Capabilities

Design and Development for Manufacturing

- Inhouse mould design and production
- Composite friction material design for specific requests
- Compound design for sinter process

Production

- Automated Mixing Unit including 28 silos for different raw materials
- Fully automated hot presses combined with continious curing oven
- Fully automated grinding&chamfer line which can handle 5 different finishing operation at once

Testing

- Noise Dynomometer with 166 kgm² inertia (AKA Master Test - SAE J2522 etc.)
- Compressibility Test (ISO 6310)
- Shear Strenght Test (ISO 6312)
- Krauss test machine (WN 602 302 & WN 602 306)
- Elemental Analysis (XRF spectrometer)
- TGA/DSC thermogravimetric analysises up to 1600 °C
- 3D CMM

Quality Management

• IATF 16949 certified by TÜV Nord CERT GmbH

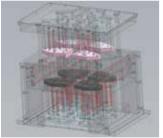
KALE BALATA











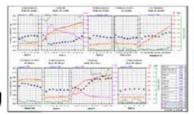


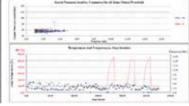












Kale Oto Radyator Sanayi ve Tic. A.Ş.

Commodity Group
Engine Cooling Radiators

Location

Çayırova Gebze Kocaeli

Headquarters & Branches Addresses Istanbul Cad. N0: 5 Çayırova - Gebze Kocaelı

Phone: +90 262 744 18 52 Fax: +90 262 744 12 75

Production Site / Capacity
Çayırova - Gebze Kocaeli
4.000.000 Pcs / Year

Website

www.kaleoto.com.tr

Contact Person
Alper Yeter / R&D Chief

Personal Mail alperyeter@kaleoto.com.tr

Interests

- Engine Cooling Components
- Engine Cooling Modules
- HVAC sytems
- Fan and Shroud Modules
- Water Cooling Radiators
- Charge Air Coolers
- Oil Cooolers
- Fuel Coolers
- Condensers

Capabilities

Concept Development

- Full Service Supplier
- 3D Modelling

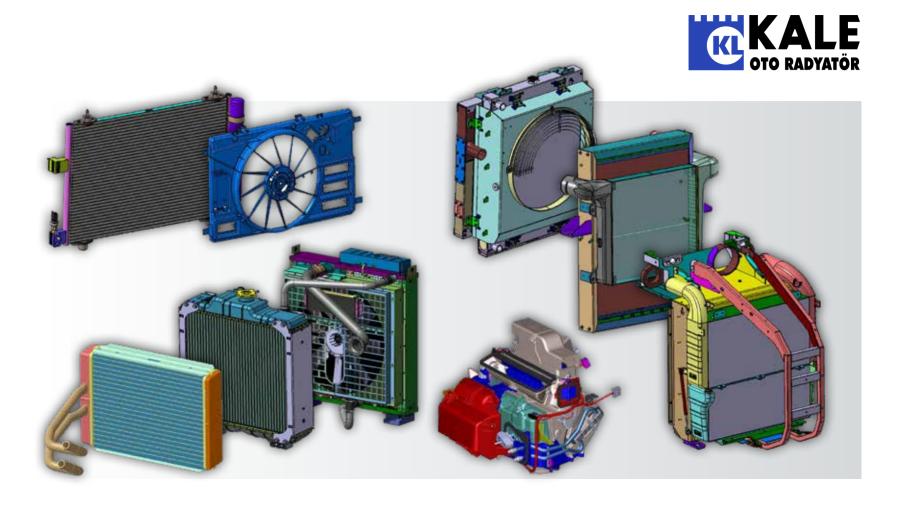
Engineering Design

- Co-design
- Inhouse Tooling, Inhouse Prototype
- Manufacturing

Validation and Verification

- Performance Test, Inhouse
- Validation Testing, Equipment





Kanca El Aletleri Dövme Çelik ve Makina Sanayi A.Ş.

Location

TOSB 1. Cad. Şekerpinar, Çayırova - Kocaeli / TURKEY

Phone: +90 262 678 8600 Fax: +90 262 678 8601

Website

www.kanca.com.tr

Contact Person

Taner Makas / R&D Manager

Personal Mail

taner.makas@kanca.com.tr

Interests

- Hot Forging
- Warm Forging
- Cold Forging of Steel Alloys
- Aluminum alloys
- Titanium alloys

Capabilities

Laboratory

- Chemical composition analysis
- Optic microscopy
- Stereo microscopy
- Brinell/Rockwell/Vickers hardness test
- 3D scanning and CMM measurement
- Tensile and compression test
- Charpy Impact test

CAD / CAM / CAE

- Product and Process development
- Prototyping

- Cutting edge metal forming technologies
- Tool and die design and manufacturing
- Product and process development of forgings
- Automation in manufacturing
- Energy saving in production
- New steel grades and alloys





Kansai Altan Boya San. ve Tic. A.Ş.

Commodity Group
Paints & Coatings

Location

İzmir, Turkey

Headquarters & Branches Addresses Kemalpaşa OSB Mahallesi İzmir Ankara Yolu (Ansızca) Küme Evleri No: 286, 35730 Kemalpaşa İzmir / Turkey

Phone: +90 (232) 870 14 70 Fax: +90 (232) 877 11 74

Production Site / Capacity İzmir, Kemalpasa

Website

www.kansaialtan.com.tr

Contact Person
Selim Yetiş / R&D Director

Personal Mail selim.yetis@kansaialtan.com.tr

Interests

Automotive & Industrial Coatings Technology

- Tailor made coating system design for passenger cars, commercial vehicles, metal & plastic parts
- Waterborne coatings
- VOC Reduction & High Solids coating systems
- High resistance coatings for automotive interior plastics
- · Anti-corrosion coatings
- Electrodeposition coatings (CED)
- UV cure coatings for automotive parts
- · Protective coatings

Resin Technology

- Solventborne & waterborne resin synthesis
- Nano particle & composite synthesis
- Hybrid resin synthesis
- Self crosslinking waterborne resins

Material Characterization

- Characterization of organic & inorganic materials
- Characterization of surface defects by instrumental analysis

Pre-treatment technologies

- Pre-treatment and phosphating of metal surfaces
- Surface- pretreatment technologies for plastics

Capabilities

- Solventborne & waterborne coating systems design for automotive OEM and part producers covering whole range of applications from electrodeposition (CED) coatings to sprayables (primers, basecoats and topcoats)
- Coatings systems design for general metal industry and protective applications
- Solventborne & waterborne resin design, synthesis, scale up
- Inhouse testing for mechanical performance, durability and weatherability according to wide range of industry standards
- Color development & design
- Polymer characterization by spectroscopic, chromatographic and pyrolytic analysis
- Particle size analysis by laser diffraction system
- Physicochemical analysis of surface properties (determination of contact angle, surface free energy and surface polarity)
- Microscopic surface defect and cross-section analysis
- Rheological analysis of polymer solutions, emulsions and liquid/paste mixtures
- Electrochemical impedance spectroscopy
- Scanning electron microscopy
- Thermomechanical analysis of polymeric films
- · Dielectric cure monitoring of paint films

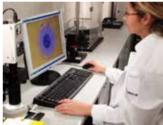


- Coatings technology
- Automotive coatingsMetal coatings
- Plastic coatings
- Protective coatings
- Coating resins
- Waterborne coatings
- Material science & nanotechnology
- Composite design&synthesis
- Surface pretreatment technologies
- Paint application&spray technologies
- Paints for composite materials





















KARAKAYA 86 Cataphoresis Coating Chemical Construction Machinery Construction Industry Trade Limited Company

Commodity Group

Şekerpınar St.1000. St. No;1037, 41420 Gebze Organized Industrial Zone (OSB) Çayırova - Kocaeli

Location

Şekerpınar St. 1000. St. No:1037, 41420 Gebze Osb, Çayırova - Kocaeli

Headquarters & Branches Addresses
Taşpınar Place Erenler OSB St.
Cumhuriyet BLVD Center/AKSARAY
2. OSB 971. Ada Number 2 Parcel
Hendek - Sakarya

Phone: +90 262 677 19 86 / 118 Fax: +90 262 677 18 54

Production Site / Capacity

HENDEK - SAKARYA

Cataphoresis: 2400 m² plate / shift, 40 ton casting / shift Powder Coating: 1000 m² / shift Zinc Plated: 9600 kg / shift, 320 m² / shift

CENTER - AKSARAY Cataphoresis-1: 2400 m² plate / shift,

40 ton casting / shift

Cataphoresis-2: 2700 m² plate / shift,
54 tons casting / shift

GOSB - KOCAELİ

Kataforez-1: shifts of 3000 m², 60 tons of cast / shift Cataphoresis-2: 1500 m² shift, 30 tons casting / shift Zinc Phosphate: 4 ton / shift Oxilane: 720 kg / shift Dimming: 720 kg / shift Aluminum Passivation: 500 m² / shift Alkaline Zinc / Zinc Nickel: 12 ton / shift Dustproof: 1200 m² / shift

Web Site

www.karakaya86.com.tr

Contact Person

Nurtaç Eraslan / R&D Manager

Personal Mail

nurtac.eraslan@karakaya86.com.tr fkarakaya@karakaya86.com.tr

Interests

- Cataphoresis Coating (Electrodeposition Coating)
- Alkaline Zinc and Nickel Plating
- Electrostatic Powder Coating Oxilane
- Zinc Phosphate Coating
- Aluminum Passivation Process
- Blackout Process
- Vibration Unit
- Sandblasting Unit
- Treatment Unit
- Our production lines in all locations have IATF 16949 quality standards.
 In addition, all our customers have OEMs in our lines."





Capabilities

- X Ray Device
- Cyclic Corrosion Testing Device
- Salt Sprey Testing Device
- 4200 MP-AES (Micro Plasma Atomic Emission Spectrometer)
- Coating Thickness Test
- Thermography
- Refractometer
- Glossmeter
- Metal Temperature Measuring Device
- Parts-Specific Hanger Design and Manufacture

Cluster Opportunities

• Automotive Supply İndustry, Automotive Metal Parts, Automotive Aluminum Parts, White Goods Metal Parts, Metal and Metal Alloys Surface Treatments, Chemical İndustry



















Kare Metal Form Sanayi ve Ticaret A.Ş.

Commodity Group
Light Aluminum Alloy Wheels

Location

Çerkezköy OSB. G.O.P Mah.

6. Cadde No: 12

Çerkezköy / TEKİRDAĞ

Headquarters & Branches Addresses Cerkezköy OSB. G.O.P Mah.

6. Cadde No: 12

Çerkezköy / TEKİRDAĞ

Phone: +90 282 726 4480 Fax: +90 282 726 2022

Production Site / Capacity 300,000 wheel / year

Website

www.carre.com.tr

Contact Person

Zülküf Peksen / Factory Director

Personal Mail zulkuf.peksen@carre.com.tr

Interests

- Light Aluminum Passenger Car Wheels
- Light Aluminum Aircraft wheels
- Composit materials.
- Innovative materials.
- · Passenger comfort.
- Forging technologies.
- Coating / Painting Technologies

Capabilities

- Low pressure Alu Casting production.
- Approved test laboratory of TSE in Turkey
- Wheel design, production and test according to TSE KBA, ECE, TUV standarts
- Magma soft simulation on tool design.
- Toolshop, Casting, Machining, Coating and Painting capabilities.

- Low Pressure Aluminum Casting
- Plastic Injection parts
- · Automotive parts
- Home Appliance parts



KARE METAL













Karel Kalıp A.Ş.

Location

İstanbul Tuzla Org. San. Bölg. (İTOSB) 8.Cad. No: 1 Akfırat Tepeören 34959 Tuzla - Istanbul / TURKEY

Phone: +90 216 593 14 75 Fax: +90 216 593 14 84

Production Site / Capacity
İstanbul Tuzla Org. San. Bölg.
(İTOSB) 8.Cad. No: 1
Akfırat Tepeören 34959
Tuzla - Istanbul / TURKEY

Website

www.karelkalip.com.tr

Contact Person

Refik Diri / General Manager Levent Saraç / R&D Manager

Personal Mail refik.diri@karelkalip.com.tr levent.sarac@karelkalip.com.tr

Interests

- Composite Materials
- Plastic Materials
- Natural Fiber Materials
- Nanotech Materials
- Automation Systems
- Robotics Systems
- Composites Overmolding
- Aluminum Mold
- Lightweighting Technologies
- In-mold decoration
- In-mold labelling

Cluster Opportunities

- Automotive Industry
- Aviation Industry

Capabilities

Plastic Injection Molding

- Sheet molding compound (SMC) Molding
- Compression Molding
- Thermoforming
- Reaction Injection Molding
- Compression Molding
- Mucell
- Gas-Assist Injection Molding
- Structural Foam Molding
- Vacuum Thermoform Molding
- · 2K Molding
- Microcellular Injection Molding
- Chemical Blow Agent Injection Molding

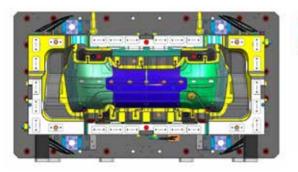
Prototype Molds & Products

- Mold Tooling, Prototype
- Manufacturing

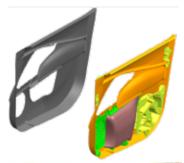
Co-design & Engineering Service

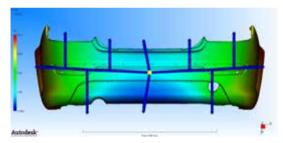
Plastic Mold Test & Correction Center

KARELKALIP

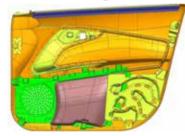
















Kentpar Otomotiv ve Makina Sanayi ve Ticaret Limited Şirketi

Commodity Group
Engine Parts - Power Train Group Crankshaft Pullley

Location

Konya / Turkey

Headquarters & Branches Addresses
Büyükkayacık Mah. 4. OSB 103. Cadde
No: 13/A Selçuklu / Konya / Turkey

Phone: +90 332 345 13 56 Fax: +90 332 345 13 95

Production Site / Capacity
1M Parts (Mix) / 3.5M Parts
(One Type)

Web Site

www.kentpar.com.tr

Contact Person Haluk Ozdemir / Foreign Trade Manager

Personal Mail hozdemir@kentpar.com.tr

Interests

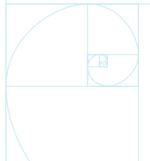
- Oem Bussiness
- After Market Sales Distributors
- OEM Bussiness Partners
- OES Part Supply
- New Hybrid Technologies & Parts
- BEV Technologies & Parts
- Vibration Control Technologies

Cluster Opportunities

- Crankshaft Pulley
- Harmonic Balancers
- Torsional Vibration Dampers
- Viscous Torsional Dampers
- Machined Parts
- Rubber Parts & Components
- Pressed & Stamped Parts
- Spinning (Cold Shaped) Parts

Capabilities

- Rubber Injecting
- Machining
- Pressing & Stamping
- Metal Plastering (Spinning)
- Coating
- Assembling
- Painting & Finishing
- Invest for Die Casting
- Laboratories on Vibration Control Technologies
- R&D Center







Kırpart Otomotiv Parçaları Sanayi ve Tic. A.Ş.

Commodity Group

Engine Parts, Automotive Cooling Systems

Location

Bursa / Turkey

Headquarters & Branches Addresses Gedelek Mah. Gedelek Sk. No: 470 Orhangazi 16800 Orhangazi Bursa / Turkey

Phone: +90 224 586 53 50 Fax: +90 224 586 53 53

Website

www.kirpart.com.tr

Contact Person

Faruk Ünlüaslan / Assistant General Manager -R&D

Personal Mail faruk.unluaslan@kirpart.com.tr

Interests

- Innovation
- Thermal Management
- Cooling Systems
- High Pressure Die Casting
- Module Design & System Design
- Innovative designs
- Thermostat
- Engine
- EV Motors
- Water Pumps

Capabilities

- Concept Development and Styling
- Full Service Supplier, Benchmarking,
- 3D Modelling, Interior/Exterior Parts
- Engineering Design
- Co-design, Tailor Made, Inhouse
- Compounding/Formulation
- · Virtual Product
- Thermal Management
- Model and Prototype
- Inhouse Prototype
- Manufacturing
- Validation and Verification
- Profile Performance Test, Inhouse
- Validation Testing, Equipment
- Calibration
- Dedicated Machining

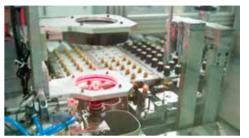




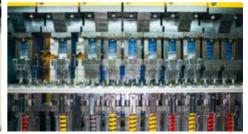












KoçSistem Bilgi ve İletişim Hizmetleri A.Ş.

Commodity Group
Information Technologies

Location İstanbul

Headquarters & Branches Addresses Ünalan Mahallesi, Çağla Sokak, Çamlıca İş Merkezi No:11 34700 Üsküdar / İstanbul

Phone: +90 216 556 11 00 Fax: +90 216 556 11 88

Website

www.kocsistem.com.tr

Contact Person

Esra Başer / Segment Marketing and Corporate Communications Director

Personal Mail esra.baser@kocsistem.com.tr

Interests

- ERP Systems and Corporate Applications
- HR Applications
- E-Learning Applications
- Robotic Process Automation (RPA)
- Digital Work Place Applications
- Mobile Platform Applications
- Smart Mobility Applications
- AR / VR Applications
- SDN Based Systems
- Optimization and Maintenance Applications
- · IDM Management
- Lifestyle Applications
- Government and Integration Applications
- Finance and Leasing Solutions
- Dealer Management Sytems and ERP Applications
- Digital Signage Applications

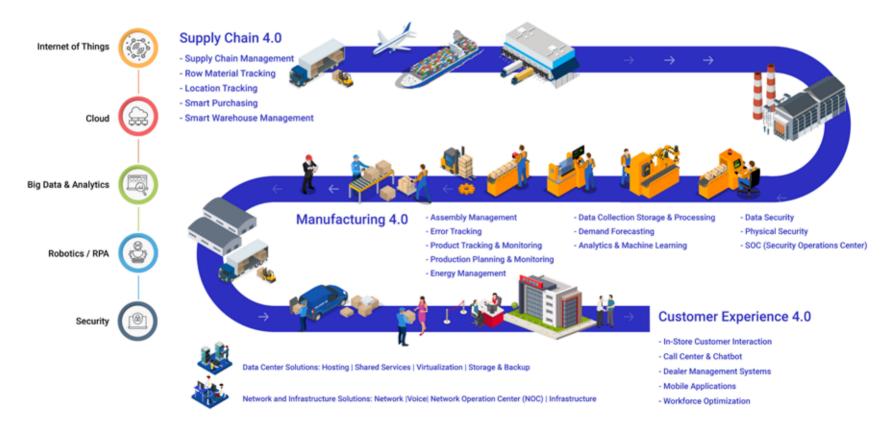
Capabilities

- Software Development
- Mobile Applications Development
- Test Automation
- Automotive Based ERP and DMS systems
- Smart Manufacturing Solutions
- Development And Operation (DevOps)
- Middleware and Integration Development
- Real-Time Based System Development
- Machine Learning and Analytics
- Video Based Platform Development
- Digital Signage Solutions Development
- Embedded Development
- Image Processing Applications
- Connected Vehicle and Related Applications

- Automotive Manufacturers
- Dealer Automative Companies
- Smart City Partners
- Rent-A-Car and Fleet Management parties



KoçSistem Digital Transformation Model



140

Kordsa Teknik Tekstil A.Ş.

Commodity Group

Tire, construction reinforcement and composite technologies

Location

İzmit, Turkey

Headquarters & Branches Addresses

Headquarter

Alikahya Fatih Mah. Sanayici Cad. No:90, 41310 İzmit / Kocaeli / Turkey

Composite Technologies Center of Excellence

Sanayi mah.Teknopark Bulvarı No:1/1B PK 34906 Kurtköy / Pendik

Brazil - Kordsa Brasil S.A.

Rua Eteno, nº 3832 Polo Industrial de Camaçari Camaçari, BA, Brazil Mobile 42810-000

Indonesia - PT Indo Kordsa Tbk

Jl. Pahlawan, Desa Karang Asem Timur, Citeureup, Bogor 16810

 $Thail and \hbox{-} Thai \hbox{Indo Kordsa Co.,} Ltd.$

Rojana Industrial Park, 1/61 Moo 5 Khanham Subdistrict, Uthai District Ayutthaya 13210

USA - Chattanooga

Kordsa, Inc. 4501 North Access Road Chattanooga TN 37415-9990 USA - Laurel Hill

Kordsa, Inc. 17780 Armstrong Road, Laurel Hill NC 28351

USA - Textile Products Inc.

W. Woodland Drive, Anaheim, CA 92801

USA - Fabric Development Inc. 1217 Mill Street, PA 18951

USA - Advanced Honeycomb Technologies

1015 Linda Vista Drive, Building C, San Marcos, California, USA 92078

Production Site / Capacity

A total of 11 sites in Turkey, USA, Indonesia, Brazil, Thailand

Website

www.kordsa.com

Contact Person

Erhan Kop / Project Coordinator

Personal Mail

erhan.kop@kordsa.com

Interests

Composite Technologies

- Lightweight Solutions
- Aerospace
- Automotive
- Industrial Application
- Marine
- · Sports equipment
- Defence

Tire Reinforcement

- Nylon 6.6 & Polyester tire cord fabric
- Tire cord grade Nylon 6.6 and Polyester yarns
 High performance Monofilaments
- Hybrid cords for tire reinforcement
- Hybrid cords for tire reinforcement
 New fibers for alternative
- industries
- More environmental friendly textile reinforcement materials

Construction Reinforcement

• Fibers and fabrics for concrete reinforcement

Capabilities

High-performance technical textiles:

- 1. Carbon reinforcements
- 2. Woven reinforcements
- 3. Hybrid Reinforcement
- 4. Aramid fabrics
- 5. Fabric development and production

Thermoplastic and thermoset resins:

- 1. Resin formulation
- 2. Carbon/Aramid/Glass Prepreg development and production

Honeycomb Sandwich Panel and Nomex Core

Nylon 6.6 and polyester based tire reinforcement fibers and fabrics for radial and bias tires

High performance Monofilament production

Prototype Develeopment

- Laboratory scale yarn & cord development
- 2) Pilot scale yarn development

Yarn development and characterization

1) Tire cord development and characterization



2) Characterization of yarn & cord fabric chemicals

Engineering Design: yarn & cord fabric production machines

Resorcinol Formaldehyde Free Dipping

Highly engineered hybrid cords with superior properties

Concrete testing laboratories for fiber reinforced concrete

- Intermediate products (Prepreg and Fabric)
- Material library (for mechanical analysis)
- Mechanical analysis support
- · End product design support
- Prototyping
- Production support
- Additive Manufacturing (Metal & Polimer)











Kormas Elektrikli Motor San. ve Tic. A.Ş.

Location

Gebze / Kocaeli

Headquarters & Branches Addresses
Taysad Org. Sanayi Bölgesi, 1 Cad.
No: 30, Gebze - Kocaeli / TURKEY

Phone: +90 262 658 21 40 Fax: +90 262 658 21 48

Production Site / Capacity
1,5 million motors

WebSite

www.kormas.com

Contact Person

Bulent Guvenel / Foreign Trade Manager

Personal Mail sales@kormas.com

Interests

- Production Automation
- · Production Assembly Design
- Specific Component Production & Assembly
- R&D Management
- Project Management With Specific Needs
- Computer Aided Design Structures in DC Motors
- Complex DC Motor Production Design & Production
- Brushless Motor Design for AC and DC Motors
- Computer Based Production Applications
- HVAC System for Commercial Vehicles
- Electronic Components

Capabilities

- 3D Modelling and Simulation of DC Motors
- Tooling Design and Manufacturing
- Engineering Design Studies for Specific Projects
- Performance Evaluation Tools for DC Motors
- Validation and Testing Tools
- Computer Aided Inspection and Control
- Life Time Testing of the Components
- Noise Level Test for Parts
- ERP Based Production Planning, Warehousing, Logistics

Cluster Opportunities

 DC Motors Production and Assembly, HVAC Units Production























MAGNA Otomotiv Tic. ve San. A.Ş.

Commodity Group
Automotive Seating

Location

Gölcük/Kocaeli

Headquarters

Magna Seating of America, Inc. Magna Exteriors and Interiors USA, Inc. 39600 Lewis Drive Novi, Michigan 48377 - USA

R&D Center

MAGNA SEATING

İzmit Gölcük Yolu 14. Km Ihsaniye Beldesi 41670 (Ford Otosan Yan Sanayi Parkı) Gölcük - Kocaeli / Turkey

Phone: +90 262 315 68 75 Fax: +90 262 315 68 76

Website

www.magna.com

Contact Person

Serhat İncesöz / R&D Center Responsible

Personal Mail serhat.incesoz@magna.com

Interests

- Seating Ergonomy
- Manufacturing Solutions
- Comfort Systems
- Innovation & Technology
- Lightweight Seat Solutions
- In-Vehicle Stowable Seats
- Safety Systems Integration
- Manual & Power Adjusters including internal full memory, Fore/Aft, Lift
- Specialty Mechanisms (Stow-in-Floor, Stand Up, Reversible, EZ Entry Manual, Full Memory Features)
- Seat Structures (HSS, Aluminum, Magnesium, UltraLite™)
- Flexible, Modular, Adaptable and Scalable
- Renewable Foam Formulations
- Conventional Foam
- Trim Covers (Cloth & Leather)
- Product Development Engineering (PDPTM) & Program Management
- Biosciences for Comfort Development & Ergonomics
- Recycling Technologies

Capabilities

Complete Seating Systems

Mechanism Solutions

Seat Structures Solutions
Foam & Trim Products

Design & Development Capabilities

TEST Validation and Verification

- Seats and Seat Anchorages ECE-R17
- Restraint Systems-Seatbelt Assemblies ECE-R16
- Restraint Systems-Seatbelt Assembly Anhorages ECE-R25
- Child Restraint System ECE-R44
- Child Restraint Systems Anchorages ECE-R14
- Occupant Protection in Interior Impact ECE-R21&ECE-R29
- Side Impact Protection ECE-R95
- Tests acc.to EURO NCAP, USNCAP,
- · Japan NCAP, Thatcham, IIWP

Cluster Opportunities

• Automotive Seating Systems



Magneti Marelli Mako Elektrik San. ve Tic. A.Ş.

Commodity Group
Automotive Lighting Technologies

Location

Bursa - TURKEY

Headquarters & Branches Addresses Organize Sanayi Bölgesi Yeşil Cadde No:28 16159 Bursa / Turkey

Phone: +90 224 219 58 15 +90 543 835 30 07 Fax: +90 224 219 57 94

Website

www.mako.com.tr

Contact Person

Hakan Oğuz Erözkan / R&D Center Coordinator

Personal Mail

hakanoguz.erozkan@magnetimarelli.com

Interests

- Welding Technology
- Lighting Technology
- Injection Molding Technology
- Prototype Technology
- Optical Design Technology
- Electronic Design Technology
- Simulation Technology
- Reverse Engineering

Capabilities

- Welding Applications, Hot Plate Welding, Ultrasonic Welding, Vibration Welding, Laser Welding
- Halogen, Projector, LED, OLED, Laser
- Plastic injection Machines
- SLA, FDM, SLS, Silicon Tools
- Front, Rear and Fog Lights Optical Design Capabilities
- PCB Design, PCB Cutting, EMC/ESD Validation
- Mechanical Simulations, Thermal and Condensation Simulations, Metalization, Sun Load, Mold Flow

- Automotive Lighting Technology
- · Advanced Engineering















Martur

Commodity Group
Automotive Seating Systems

Location

Headquarters

Eski Büyükdere Caddesi No: 14 Park Plaza Kat: 17 Maslak 34467 İstanbul / TURKEY

Bursa Plant

Organize Sanayi Bölgesi Kahverengi Cadde No: 9 16150 Nilüfer - Bursa / TURKEY

Phone: +90 224 294 90 00 Fax: +90 224 241 33 60

Website

www.martur.com.tr

Contact Person

Dr. Recep Kurt / R&D Director

Personal Mail rkurt@martur.com.tr

Interests

- Lightweight Materials
- Composite Materials
- Innovative Materials
- Intelligent Materials
- Passenger Comfort
- Assembly Technologies
- Seating Power Systems
- Multi Functional Materials
- Sustainable and Eco-friendly Materials and Processes
- Innovative Design
- Sensors-Electronic Circuit Design (Hardware-Software)
- New Analyse and Simulation Methods
- 3D Print Technologies
- Fast Prototyping Methods
- Cockpit Design

Capabilities

Concept Development and Styling

- Benchmarking
- 3D Modelling

Engineering Design

- Co-design
- Finite Element Analysis

Model and Prototype

- Inhouse Tooling,
- Inhouse Prototype
- Inhouse Circuit Prototyping

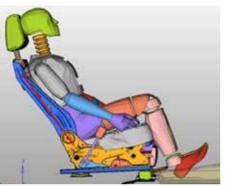
Validation and Verification

- Performance Tests
- Validation Tests
- · Homologation Tests

- Seating Systems
- Safety
- Ergonomics















Maysan Mando Otomotiv Parçaları San. ve Tic. A.Ş.

Commodity Group Shock Absorber

Location

Organize Sanayi Bölgesi Yeşil Cad. No:26, 16159, Bursa / TURKEY

Phone: +90 224 243 1350 Fax: +90 224 243 1354

Production Site / Capacity 7.500.000 S.Absorber / Year

Website

www.maysanmando.com/

Contact Person

Cem Güneri / R&D Center Responsible

Personal Mail

cguneri@maysanmando.com

Interests

- Passive / Semi-Active / Active Suspension Systems
- Light Materials Al & Mg Alloy
 Materials
- Composite Materials Additive Manufacturing
- 3D Printing
- Rubber Materials
- NVH Improvement
- · Passenger Comfort
- Noise Filtration
- Innovative Production Methods
- 1D CAE
- Mechatronic System Simulation
- Product Data Management (PDM)
- Friction Welding
- Hydroforming
- · Magnetorheological Fluid

Capabilities

Design

- Concept Design (2D & 3D)
- Co-Design , Tailor Made, Benchmarking

Engineering Simulation

- Component Design, 3D Modelling, Optimization
- System Analysis, Packaging Analysis, Strength/Fatique Analysis, Side Load Analysis

Model and Prototype

• Inhouse Tooling, Inhouse Prototype

Test & Validation

- Virtual Test, Multi-axis simulation
- Laboratory Tests (Servo Hydraulic Test Benches)
- Vehicle Tests, Tuning Truck, Proving Ground Tests
- Performance, Endurance Tests
- Corrosion Test
- NVH Measurements (Noise Cabin)

Project Management

- ISO 16949
- Product Lifecycle Management (PLM)

- Automotive Suspension Systems
- Electric & Hybrid Vehicles
- Light Weight Automotive Components
- Additive Manufacturing Applications





Meklas Otomotiv İthalat - İhracat San. ve Tic. Ltd. Şti.

Commodity Group
Automotive

Location

Bursa / Türkiye

Headquarters & Branches Addresses
MEKLAS OTOMOTIV İTHALAT

- İHRACAT SAN. ve TİC. LTD. ŞTİ

Işıktepe OSB Mah. Turuncu Cad. 1.sokak. No: 2 Nilüfer / Bursa

MEKPA HAVA SÜSPANSİYON KÖRÜKLERİ KOLL.ŞTİ.

Ata SB Mah. Gül Cad. No: 9 Bursa Serbest Bölge Gemlik / Bursa

Website

www.meklas.com

Contact Person Gürkan İLHAN

Personal Mail gurkan@meklas.com

Interests

- Air Springs
- Air Suspension Systems
- Vibration Isolators
- Rubber, Metal and Composite materials
- Axle and Suspension Systems
- Industry 4.0

Capabilities

- 2D-3D Design
- Reverse Engineering
- Co-Design
- Simulation
- Finite Element Analysis
- Validation and Verification
- Project Management
- Rheometer Test
- Tensile Strength Test
- Endurance, Function and Bursting Tests

- Process Design
- Engineering
- Design & Validation
- Air Suspension Systems





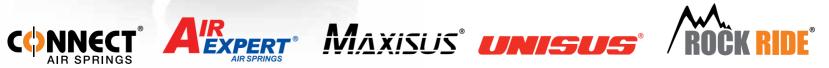












Mesa Makina Döküm Gıda San. Tic. A.Ş.

Commodity Group
Casting and Machining Company

Location

3.Organize Sanayi Bolgesi. Ihsandede Cadde 20 Nolu sk. No: 5 42300 Selcuklu / KONYA Phone: +90 332 2391872

Fax: +90 332 2391876

Production Site / Capacity

12000 tons/year iron casting. 400 tons/year Al. gravity die casting 500 tons/year Al. resin molding. 1.200.000 pcs finished parts/year

Website

www.mesamakina.com.tr

Contact Person

Samet Tekelioğlu / R&D Director and Member of Board

Personal Mail

samet.tekelioglu@mesamakina.com.tr

Interests

- Casting Technologies
- Machining Tools and Fixtures
- OEM Manufacturing
- Mould Desing and Manifacturing
- Aluminum Casting
- New Technologies
- Advanced Manufacturing
- Composite Materials
- Innovative Materials

Cluster Opportunities

- Automotive Industry
- Heavy Construction Equipment
- Energy
- Hydraulic Filters
- Agricultural Machinery
- Industry
- Rail Systems Industry
- Defence Sector

Capabilities

Engineering Desing

- Co-Desing
- 3D Modelling-Bencmarking
- Reverse Engineering
- Tool Desing

Tooling and Prototype

- Detail Cost Analysis
- Prototype Manufacturing
- Tooling Manufacturing

Laboratory Equipments

- 3D CMM
- Metallographic Microscope
- Spectral Analyzer
- Thermal Analyzer
- Pyrometer
- Drying Oven
- Mold Sand Moisture Meter
- Gas Permeability Measuring Device
- Wet Strength Testing Equipment
- Ultrasonic Testing Equipment
- Magnetic Particle Testing Machine
- Surface Roughness Tester

Quality Management

- IATF 16949/2015
- OHSAS 18001:2007
- EFQM Excellence 4 Star







To become the global leader that will be your solution partner in your dreams for shaping metal.























Mutlu Akü A.Ş.

Commodity Group
Battery (mainly lead acid)

Location

Tuzla-İstanbul

Headquarters & Branches Addresses Mutlu Akü ve Malz. San. A.Ş. Tepeören Mahallesi, Eski Ankara Yolu Cad. No: 210 34959 Tuzla - İstanbul

Phone: +90 216 304 15 90 (pbx)

Fax: +90 216 304 18 70

Production Site / Capacity 6 million unit / year

Website

www.mutlu.com.tr

Contact Person
Dr. Deniz Şeker / R&D Director

Personal Mail dseker@mutlu.com.tr

Interests

- Electrical energy storage
- Batteries for micro&mild hybrid cars
- Battery management systems
- Lead acid batteries and applications
- Li-ion batteries and applications
- Energy storage materials

Capabilities

- Manufacturing and installation of the batteries
- Manufacturing and system integration of the batteries
- Designer and developer
- Producer
- Pack and BMS developer

- Hybrid and electric vehicle batteries
- Battery management systems
- Grid scale energy storage





Nesan Otomotiv A.Ş.

Commodity Group

Fuel Tank Components, Lock Sets, Electromechanical Switches

Location

İzmir Turkey

Headquarters & Branches Addresses

I. Turan Cad. No:170 35470 Menderes İzmir

Phone: +90 232 782 56 00

Fax: +90 232 782 45 91

Website

www.nesan.com.tr

Contact Person

Cüneyt Adam / Vice General manager

Personal Mail

cuneyt.adam@nesan.com.tr

Interests

- Fuel Level Sensors
- Urea (Adblue) Sensors
- All kind of Switches such as Pressure, Temperature, Oil, Mechanical, Warning
- Ignition Switches
- Light Switches
- Battery main (cut off) Switches
- Filler Necks and Filters
- Filler Caps
- Relief Valves
- Safety Valves
- Rollover Valves
- Door Handles, Toolbox Locks, Bonnet Locks
- Remote Control system
- Immobiliser System
- · Keyless Entry
- Commercial Vehicle Digital Cluster

Cluster Opportunities

- Fuel and Urea (Adblue) Tank Components
- Lockable Parts on Vehicle
- Elektrical & Electronic Components
- Vehicle Interior Electronics

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking,
- 3D Modelling, Interior/Exterior Parts

Engineering Design

• Co-design, Tailor Made, Mechanical (CAE) & Flow Simulations (CFD)

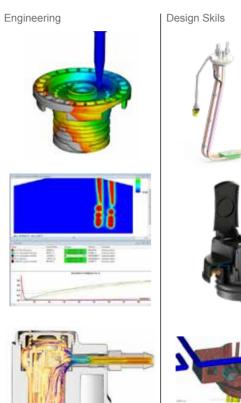
Model and Prototype

- Inhouse Tooling, Inhouse Prototype (Milling & Rapid Prototyping)
- · Manufacturing

Validation and Verification

- Operetional Performance & life Tests
- · Validation Testing,
- Special Test Equipments depends on Customer Requirments
- Environmental (Temperature Cycle, Shock, Humidity) Tests
- Vibration Test
- Endurance Test
- IP Protection Tests (Water, Jet Wash, Dust)
- Drop Tests
- Filling Tests













Norm Cıvata San. ve Tic. A.Ş.

Commodity Group

FASTENERS (Bolts, Wheel Bolts, Knurled Bolts, Studs, Nuts, Welding Nuts, Bushes, Ball Pin-Ball Stud, Z-Ball Pin, Coach Screws, Welding Bolts, Storage Fasteners, Rivets, Pivot Bolts, Ojival Form Bolts)

Location

TURKEY (İZMİR - SALİHLİ - BURSA - İSTANBUL) GERMANY (KREFELD), FRANCE (MEAUX), U.S.A (MICHANGAN)

Headquarters & Branches Addresses
Atatürk Organize Sanayi Bölgesi 10007
Sok. No: 1/1, 35620, Çiğli, İzmir - Turkey
Phone: + 90 232 376 7610
Fax: + 90 (232) 376 7613

Production Site / Capacity
TURKEY (İZMİR-SALİHLİ)
152.000 tones (All holding companies)

Website

www.norm-fasteners.com.tr

Contact Person

Mahmut Öztürk / Head Of Industry Group

Personal Mail

mahmut.ozturk@norm-fasteners.com.tr

Interests

- Standard and Special Fasteners
- Aluminum Fasteners
- Light-weight Design of Steel Fasteners
- Cold Forging Technologies
- Numerical Modeling of Cold Forging Operations
- Forging Die Materials
- Tool / Die Design
- Machine Design
- Material Testing and Modeling
- Industry 4.0 Applications; Smart Machines, Agumented Reality, Wireless Tracking
- Digitalization of Analog Systems
- International Funded Project Partnership

Cluster Opportunities

- Automotive Industry
- Goods Industry

Capabilities

R&D Capabilities

- Cold Forging of Steels and Aluminum Alloys
- 3D Modelling
- Finite Element Simulations of Cold Forging Process
- Fatigue Testing of Fasteners
- Torque Tension Friction Coefficient Testing of Fasteners
- Bi-axial Vibration Testing of Fasteners
- 3D Prototyping; Additive Man.
- Design for Cost Reduction
- Design for Weight Reduction
- Metal Forming Analysis & Tool/die
 Design
- General Capabilities
- Co Design, Tailor Made, All - In - House
- Manufacturing and Heat Treatment
- Validation Testing, Equipment



















162

Nova Kalıp ve Plastik

Commodity Group

Automotive Plastic Part and Mold Supplier for; Fluid Circulation and Transfer Systems, Wiper Systems, Automotive Lighting, Suspension and Steering Systems, Mirror Systems

Location

Eskişehir / Turkey

Headquarters & Branches Addresses

Headquarters and Production Site: OSB 8. Cadde No: 19 Eskişehir/Turkey 26110 R&D Center: OSB 8. Cad. No: 19

Eskişehir / Turkey 26110

Mold Production Center: Topcular Mah.

Rami Kişla Cad. No: 61 Üretmen İş

Merkezi A Blok No: 308-309

Rami-Eyüp / İstanbul

Phone: +90 222 236 0690 Fax: +90 222 236 0689

Production Site

Eskişehir / Turkey

Website

www.novakalip.com.tr

Contact Person

Erkan Sahlan / General Manager

Personal Mail erkan.sahlan@novakalip.com.tr

Interests

- Plastic processing technology
- Mold making technology
- Polymer materials
- Surface treatment processes
- Industry 4.0
- Automation systems
- Plastic product design
- Finite Element Analysis and Simulation
- Reverse Engineering
- Metrology Systems and Equipment

Capabilities

R&D

- · Product design and development
- Co-Design
- Prototype design & production
- 3D modelling & analysis
- Finite Element Analysis
- Detail Cost Analysis
- · Project management

Mold Production

- Design and production of plastic injection and overmoulding molds (Maximum weight of 5 tons and dimensions of 1060 x 600 x 600 mm.)
- Mold repair and modification
- Fixture and jig production
- Precision machining

Plastic Injection

• Precise Injection Part Production with 39 Plastic Injection Machines ranging from 50-700 tons

- OEM producer for plastic parts for automotive, home appliance, medical, electronics and sanitary industries
- Assembly and control

Wet Painting & Printing & Assembly

- Wet Painting Lines
- Pad printing and Hot Pad Printing
- Silk Screening
- Inkjet Coding

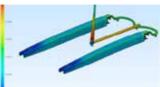
Laboratory

- CMM 3D Measurement
- Profile Projector and Surface Roughness Tester
- Color Analysing Chromameter and Glossmeter
- Film Thickness Measurement Device and Cross Cut Test
- Hardness Measurement
- Moisture Analyzer and Density Meter
- Antifreeze Aging Test Device
- Dinamometer and Shoremeter
- Torquemeter
- Ovality Measurement Device
- Ash Determination and MFI Test Device
- Standard And Special Purpose Measurement Instruments"

- Fluid Circulation and Transfer Systems
- Wiper Systems
- Automotive Lighting
- Suspension And Steering Systems
- Mirror Systems
- Seating Systems
- Transmission Systems
- Inner and Outer Trim parts

























Nursan Kablo Donanımları San. ve Tic. A.Ş.

Commodity Group Nursanlar Holding

Location

Kütahya, Tavşanlı, Bulgaristan

Headquarters & Branches Addresses İstanbul Phone: 90 274 290-1010

Fax: 90 274 290-1013 Production Site / Capacity

Web Site

www.nursaneletrik.com

Contact Person
Selma Yurt Yıldırım / R&D Manager

Personal Mail syildirim@nursankd.com

Interests

- PP Corrugated Tube & PVC Smooth Tube
- Cables
- Battery Cables
- · Wire Harness Design
- 3D Design, Mechanical Analysis, Prototyping with 3D Printer and 2D Drawing Release
- Production Line
- PP Corrugated Tube / PVC Smooth Tube Production
- CSC (Cutting Stripping Crimping)
- Mechanical Splicing
- PVC Injection
- Assembly Lines
- Ultrasonic Splicing
- Stability
- Module Design & System Design
- Recycling Technologies
- Automotion System for processes
- Innovative Materials

Capabilities

- PP Corrugated & PVC Smooth Tubes are produced in diameter range between 4 mm2 to 24 mm2.
- Nursan produces T1, T2, T3 types of heat-resistant PVC, EPDM and PP cables in ranges between 0,22mm2 to 120mm2.
- Battery Cables provide connection between the battery of the car and the alternator and subsequently supply electric power to harness system. Battery cable production requires different area of expertise even though it is rather similar to the wire production process.
- Automotive harness design with VeSys HARNESS, UNIGRAPHICS NX 12.02 HARNESS, CAPITAL HARNESS, CATIA V5-6R HARNESS
- Automotive Part Design and Analysis with AUTOCAD, CATIA V5-6R, UNIGRAPHICS NX 12.02
- 0.22 mm² 10.00 mm² cross-section standard wire and in 10.00 mm² – 90 mm² cross-section battery cable are produced on PVC extrusion lines. Nursan has 5 extrusion lines with overall capacity of 450.000 car sets per year.

- -Rosendahl Extruder: 1200 m/min.
- -Nokia Maillefer Extruder: 1000 m/min.
- -65 mm2 Extruder: 200 m/min.
- -2 x 90 mm2 Extruders: 200 m/min.
- PP corrugated and PVC smooth tubes are manufactured in Nursan and used for protecting wire from external factors and sealing purposes. Nursan has three apposite extrusion lines.
- -PP Corrugated tube Extruder: 50 m/min. x 2 line
- -PVC Smooth tube Extruder: 50 m/min."
- The CSC operation can be performed both mechanically and automatically. Mechanical crimping is performed on manual presses, supported with CQM control systems. Meanwhile, the automatic CSC machines are equipped with the latest technology and support several simultaneous operations such as plug sealing, double crimping and cable twisting. We count 41 automatic CSC machines in our production with overall 450.000 car set per year capacity.
- Mechanical splicing is one of the bonding methods of wire.
 The conductive parts of multiple wires are spliced with addon terminal on manual presses and the area of welding is
 subsequently protected either by shrinking tube or tape.
- The PVC injection is applied on harness ties with the scope of providing sealing on some areas of the vehicles. Injection machinery and molds are designed based on evaluation of raw material type and number of pressing counts.
- The production process of wiring harness systems is designed in accordance with project volume and specifications. Number of boards and size of conveyor is determined after feasibility and capacity studies are fully finalized. Assembly process is performed on T-Conveyors (10-24 tables), Penta-Conveyors (5 tables) or Fixed Tables (1 table). Some additional equipment and boards are used for subassembly processes as well. All wiring harnesses undergo 100% electrical tests on special test benches.
- Ultrasonic wire splicing is performed by applying the energy of high frequency vibrations to the interface area between the parts to be welded. Thanks to this operation conductive parts of multiple wires are securely welded.

Model and Prototype

- Inhouse Tooling, Inhouse Prototype
- Manufacturing

Engineering Design

- Co-design, Tailor Made, Inhouse
- Compounding/Formulation

NURSAN



Odelo Otomotiv Aydınlatma A.Ş.

Commodity Group
Automotive Lighting Products

Location Bursa

Headquarters & Branches Addresses Minareliçavuş Bursa OSB Mahallesi Sarı Cad. No: 21 Nilüfer 16220 BURSA - Turkey

Phone: +90 224 270 0700 Fax: +90 224 243 1192

Production Site / Capacity
Bursa 1 & Bursa 2

Website

www.odelo.com.tr

Contact Person
Orhan HAŞAL / R&D Center Manager

Personal Mail orhan.hasal@odelo.com.tr

Interests

- EMC & EMI Tests for Automotive Lighting
- Electronic Hardware and Software Development
- Product Design and Development
- Mold Design and Development
- Process and Assembly Development
- LED Lighting Units Development
- Thermal Management for Automotive Lighting
- Optical, Thermal and Structural CAE
- · Prototyping

Cluster Opportunities

- Product or process technology developments for Automotive Lighting Sector
- EMC & EMI Simulatios, Measurements and Precompliance
- National and international project funding oppurtunities and collaborations

Capabilities

- Automotive lighting product and process development for automotive sector according to customer expectations as a full service supplier.
- Electronic Design (PCB Layout & Assembly, Electronic Circuit Management)
- Optical Design (Regulative Simulations & Measurements)
- Lighting Technologies (LED, Halogen, Xenon)
- Other Simulations (Thermal Management, Vibration, Fatigue, Pedestrian Safety, Moldflow)
- Injection Molding Technologies
- Coating Tecnologies (PVD Metalizing, Hard Coating, Antihaze Coating)
- Thermoplastics Welding (Including Laser, Vibration, and Ultrasonic)
- Validations and Verifications



















Olgunçelik San. ve Tic. A.Ş.

Commodity Group

Commercial Vehicle Leaf Springs

Headquarters & Branches Addresses Keçiliköy OSB Mah. Hasan Türek Bulvarı No: 14, 45030 Yunusemre / MANİSA

Phone: +90 236 233 04 44 Fax: +90 236 460 40 87

Website

www.olguncelik.com.tr

Contact Person Özgür Arslan / Engineering Director

Personal Mail ozgur.arslan@olguncelik.com.tr

Interests

- Suspension System & Component Design
- Ride Comfort / Tuning
- Finite Element Analysis
- Component & System Fatigue Testing
- Component & System Modal Testing
- High Strength Steels
- Composite Technologies

Capabilities

Engineering Design & Development

- Full Service Supplier
- 3D Modelling & Virtual Analysis
- Prototyping
- Inhouse Physical Validation
- Detailed Engineering

Virtual Engineering

- 3D Modelling
- Geometric Compatibility Analysis
- Static & Dynamic Stress/ Strain FE Analysis
- Fatigue Life Analysis
- S-N Curve Development

Physical Validation

- State of the Art 6 Axis Fatigue Testing
- Modal Testing
- Material / Metallurgical Testing
- Corrosion Testing

Composite Technologies

• Composite Materials Design & Development

- Axle Systems
- Bushing Components
- Chassis Components



CLGUNCELIK

Leading Spring Technology





Orau Orhan Otomotiv Kontrol Sistemleri Sanayii A.Ş.

Commodity Group

Fluid Transfer Systems, Gearshift Mechanisms, Cables, Springs, Plastic And Metal Products

Location

BURSA (R&D Center)

Headquarters & Branches Addresses
ORAU Orhan Automotive
NOSAB Meşe Cad. No:6
16152 Nilüfer - BURSA

Phone: +90 224 280 66 00 Fax: +90 224 242 18 91

Website

www.orhanautomotive.com

Contact Person

Coşkun Karataş / R&D Chief

Personal Mail

coskunkaratas@orhanautomotive.com

Capabilities

Design and Development

- Studying Feasibility of Product Concepts
- 3D Part and Assembly Design
- ISO Dimensioning and Tolerancing
- Structural Functional Analysis (CAE, CFD..etc)
- Generating Alternative 2D/3D Designs
- · Weight Optimization
- · Fast Prototyping

Model, Styling and Prototype

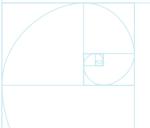
- Inhouse Prototype
- Inhouse Styling
- Inhouse Tooling

Validation and Verification

- · Material Tests
- Performance Tests
- Validation Tests

Cluster Opportunities

 Fluid Transfer Systems, Gear Shifters, Flexible Cables and Control Mechanisms, Plastic and Metal Components, Springs.











Ortadoğu Rulman San. ve Tic, A.Ş.

Commodity Group

Ball and Roller bearings, Rollers

Location

Polatlı - Ankara / TURKEY

Headquarter

Mustafa Kemal Mah., Eskişehir Yolu, No. 294, Çankaya - Ankara

Factory

İstiklal Mah. Hacı Bayram Veli Bulv. No. 76/A 06900 Polatlı - Ankara

Phone: +90 312 648 00 20 Fax: +90 312 648 00 22

Production Site / Capacity
300,000 m² manufacturing facility /
80,000,000 Ball and Roller bearing
pcs/year

Website

www.orsbearings.com

Contact Person

Dr.- Ing. Hamdullah Merdane / R&D Center Manager

Personal Mail hamdullah.merdane@ors.com.tr

Interests

- · Vibration analysis
- Coatings
- Condition monitoring
- Heat treatment
- Sealing
- FEA

Capabilities

Engineering Design (Ball bearings and assemblies)

• Co-design, Tailor Made, Inhouse

Concept Development

• Full Service Supplier

Prototype

- Inhouse Tooling, Inhouse Prototype
- Manufacturing

Validation and Verification (Roller bearings)

- Performance Test, Inhouse
- Validation Testing, Equipment

- Energy efficient drivetrain
- Supplier for Electric Vehicles
- Novel design and predictive maintenance technologies for increased operating life of production systems
- Sealing systems
- Big data for optimization of manufacturing processes
- Digital automation , Digitalization of order picking processing





Ortem Elektronik

Commodity Group
Electronic Control Units

Location

Gebze/ Kocaeli

Headquarters & Branches Addresses
Osman Yılmaz Mah. İstasyon Cad.
No: 636/B Gebze / KOCAFLİ

Phone: +902626441000 Fax: +902626447978

Production Site / Capacity
1 Million Unit/year

Website

www.ortem.com.tr

Contact Person

Ömer Şahin Karaman Director of Business Development

Personal Mail omer.karaman@ortem.com.tr

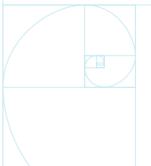
Interests

- Body Control Units (Multiplexers)
- Suspension Control Units
- Battery Management Systems
- Instrument Clusters
- Vehicle Tracking Devices

Capabilities

- System Design
- Embedded Hardware Design
- Embedded Software Design
- Mechanical Design
- Electronic Control Unit Manufacturing

- Electronic Control Unit Development
- Unified Diagnostics Services
- Funcitonal Safety Control Units

















OTTONOM Mühendislik Çözümleri Tasarım Otomasyon Danışmanlık A.Ş.

Location

Bursa-Ankara

Headquarters & Branches Addresses

Headquarter: Dumlupınar mah. Selçuk

Cad. No:8/1 Nilüfer / BURSA

Branches: Uzay Çağı Cad. 1308. Sok.

No:6 Kat: Zemin kat Ofis No: 4

ODTÜ Teknopark, OSTİM /ANKARA

Phone: +09 224 443 11 16 Fax: +09 224 443 11 16

Production Site / Capacity

Engineering, Design, Testing, Trainee

Website

www.ottonom.com

Contact Person

İsmail ÖZCAN / Genel Müdür

Personal Mail

ismail.ozcan@ottonomgroup.com

Interests

- Module Design & System Design
- Attachment & Assembly Technologies
- Engineering
- Testing Systems
- Automation & Production Systems
- Engineering Traniee
- Tooling Systems
- Environmental Testing Systems
- Climatic Testing Chamber
- Specialized Industrial Testing Systems

Cluster Opportunities

- Testing Systems
- Design Researches
- Engineering
- Automation Systems
- Traniee & Education
- Tooling Systems
- Environmental Testing Systems
- Specialized Industrial Testing Systems

Capabilities

Engineering & Design

- Body in White, Closures, External Trim Design
- Seat Design
- Structural Design
- Static, Modal FEM analysis

Testing & Automation & Production

- Process Fixture Design and Production
- Smart Process Design and Production
- Test System Design and Production
- Detail® Climatic Testing Chamber

Engineering Trainees

- Sheet Metal Part Design Trainee
- Plastic Part Design Trainee
- Product Development Consulting
- Prototype Part Design Trainee
- CAE for Designers Trainee



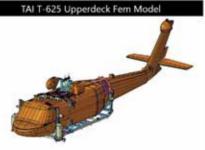






DETAIL ® Climatic Testing Chamber

DETAIL







Özler Plastik Sanayi ve Tic. A.Ş.

Commodity Group
Heat Ventilation Air Ducts / Engine

Parts / Windshield Washer Tanks

Location

İstanbul / Avcılar, İstanbul / Sefaköy, Balıkesir, Gölcük, Derince

Headquarters & Branches Addresses Özler II Binası, Üniversite Mah. Bağlariçi Cad. No: 6/8 34325

Avçılar / İstanbul

Phone: +90 212 456 66 66 Fax: +90 212 456 66 97

Production Site / Capacity
15 000 000 Automotive parts / year

WebSite

www.ozlerplastik.com

Contact Person

Mert Gülcan / R&D Center Director

Personal Mail mert.gulcan@ozlerplastik.com

Interests

- Composite Materials
- Innovative Materials
- Heat Ventilation Systems
- Air Ducts For Engine Parts
- Co-extrusion
- High-Tech Blowmolding Machines
- Smart Molds
- Internet of Things
- Industry 4.0

Capabilities

Design

- Multi-Cavity Blowmolds for 2D Blowmolding Process
- Multi-Cavity Blowmolds for 3D Blowmolding Process
- Multi-Cavity Injection Molds
- Cutting Units
- · Control Fixtures
- Full Service Supplier

Analyze

- Raw Material Test (MFI, Flammability...)
- Simulation of Blowmolding Process by Using Polyflow

- Mechanical Analysis by Using Ansys
- 3D Measurement
- Acoustic Performance

Production Technology

- 2D Blow Molding PE, PP, PP & EPDM, PAGF
- 3D Blow Molding
 PP. TPC-ET, PA66.6 / PA-GF, PBT, PPS, TPM
- Injection Molding PE, PP
- Bonding Techniques Hot Plate Welding, Ultrasonic Welding, Friction Welding, Seals, Caps, Hoses, Pumps

- Light Weight Automotive Components
- Foam Ducts
- · Clean Air Ducts for Engine
- Dirty Air Ducts for Engine
- Turbocharger Air Ducts
- Engine Intake Air Pipe
- AdBlue Systems
- Polyurethane Foam Automotive Parts





180

Parsan Makina Parçaları Sanayii A.Ş.

Commodity Group

PARSAN specialises in diverse type of forgings and provides integrated metallurgical and industrial processes including heat treatment, destructive and non-destructive testing, machining and fine machining wih certified quality. The company forges materials ranging from carbon and alloy steel to titanium, and other specialty metals

Location

Dilovası / Kocaeli / TURKEY

Headquarters

Levent Mahallesi Tekirler Sokak No: 10 Besiktas / Istanbul / TURKEY

Dilovası Plant

Makine İhtisas OSB 2. Cadde 120 Ada 6 Parsel No:7 Dilovası / Kocaeli / TURKEY

Pendik Plant

Güzelyalı Mahallesi Parsan Çıkmazı Sokak No: 2/1 34903 Pendik / Istanbul / TURKEY

PARSAN MAKİNA PARÇALARI SANAYİİ A.Ş is an affiliate of GÜRİŞ INDUSTRIAL GROUP

Phone: +90 262 502 06 47 Fax: +90 216 493 1280

Production Site / Capacity

271000 m² (66,96 Acres) underroof shopfloor with realised capacity of 90000 ton/year and 1362000 pc/year in 2018

Wehsite

www.parsan.com

Contact Person

Tansel KASAR / Manager R&D, GÜRİŞ INDUSTRIAL GROUP

Personal Mail

tkasar@parsan.com

Interests

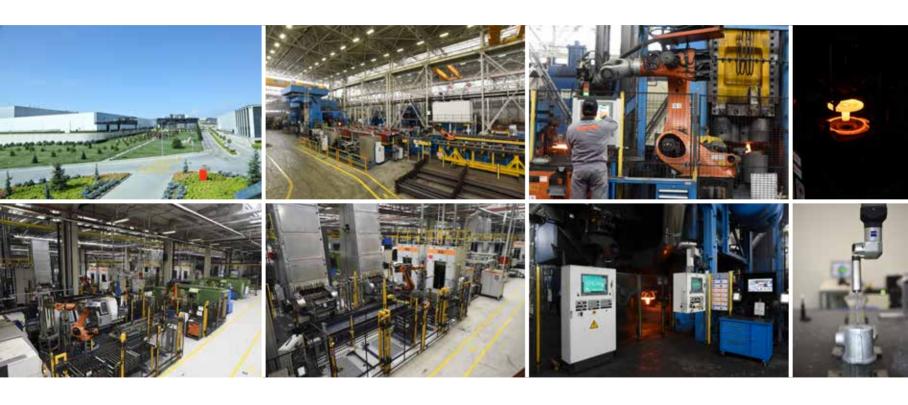
- Enabling technologies/innovative techniques to rationalize efficient forging products and processes
- Smart, interconnected, adaptive production lines with digital infrastructure and human-machine collaboration
- Contribution to the projects of challenging industries
- Partnerships steeped in science, technology and engineering to implement the best practice with theory

Capabilities

- Automatic rear axle flange and spline forging line for heavy duty vehicles and light commercial vehicles through seamless, standardized operations
- Automatic piston forging line for heavy duty commercial vehicles and passenger cars.
- Automatic 12800 T screw press forging line, integrated with heat treatment and controlled cooling band.
 Capable of forging crankshafts, rear axle beams, steering knuckles and flanges for commercial vehicles.
- All-encompassing process design including die, tool, fixture, misc. Apparatus, manufacturing and testing
- 3D Modelling, Prototyping and Software aided design and analysis tools
- CNC Machining (Turning, milling, grinding, gear cutting, drilling), induction hardening, washing, sand blasting, rolling
- Mechanical and Metallurgical Testing

- Automotive
- Aerospace
- Defence
- Railway
- Agriculture
- Other Industrial Components





Pimsa Otomotiv A.Ş.

Commodity Group

Interior or Exterior Trim Parts for Automotive

Location

Pimsa Otomotiv A.S

Tosb 14. Sk., 1. Cad. No: 8

41420 Çayırova/Kocaeli

PIMSA OTOMOTIV UK

Carrwood Road,

Chesterfield / Derbyshire

S41/9QB/UK

Headquarters & Branches Addresses

Pimsa Otomotiv A.Ş

Tosb 14. Sk., 1. Cad. No: 8

41420 Çayırova / Kocaeli

Phone: +90 262 781 02 00

Fax: +90 262 658 22 00

Production Site / Capacity Kocaeli

Website

www.pimsa.com.tr

Contact Person

Cem Yiğit / R&D Manager

Personal Mail

cem.yigit@pimsa.com.tr

Interests

- Polyurethane Materials
- Innovative Materials
- NVH Improvement
- Composite Materials
- Recycling Technologies

Cluster Opportunities

- Composite Sound Insulators
- NVH solutions
- Long Fiber Injection
- Light Weight Parts
- Powertrain Parts

Capabilities

Engibeering Capabilies on:

Material Development Product Development

Process Development

• Sunvisors - Design & Development

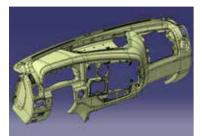
Polyurethane Components

- Design and Developments
- Polyurethane Floor Mats/Bulkheads
- Polyurethane Insulators
- Polyurethane Integral Skin Parts
- Polyurethane RIM Parts/RRIM Parts
- Polyurethane Shock Absorbers

NVH Parts, solutions

- Interior and Exterior Trim Parts
- Spray Polyurethane Applications
- Composite Polyurethane Systems(Loadliner/LFI)
- Battery Insulator
- Engine Cover, powertrain encapsulations











































Plus Kalıp San. ve Tic. A.Ş.

Commodity Group
Stamping Die for Sheet Metal and
Aluminum Parts

Location

Fethiye OSB Mah. Organize Sanayi Bölgesi Ali Osman Sönmez Bulvarı No:9 Nilüfer / BURSA

Headquarters & Branches Addresses
Fethiye OSB Mah. Organize Sanayi
Bölgesi Ali Osman Sönmez Bulvarı No:9
Nilijfer / BURSA

Phone: +90 224 482 20 40 / 0224 466 00 30 Fax: +90 224 482 35 31

Production Site / Capacity 5000sqm / 130.000 hours (25wc + 56bc = 81 total / (23R&D))

Website

www.plustooling.com

Contact Person Ali YÖNEL / Project&Design Manager

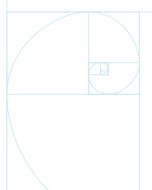
Personal Mail ali.yonel@plustooling.com

Interests

- Innovative Materials
- · Aluminum Heat Shield
- Stainless Steel
- · UHSS Material
- Products Development & Process Flow
- Industry Wide New Products
- Reverse Engineering
- New process&design technology
- New forming technology
- Skin Panel Die Production
- Chassis Part Tool
- Low volume die production standart
- Digitization try outsimulation&machining

Capabilities

- Inhouse Tooling, Inhouse Prototype
- Full Service Supplier
- Process design, Interior / Exterior Parts
- Die design, Interior / Exterior Parts
- Co-design
- Quality Control
- · Manufacturing
- Try-Out
- TWB, TRB and Patchform material forming
- Project management (Plus Tooling special system)
- Weight reduction (product&die)
- Cost reduction (product&die)







Rollmech Automotive San. ve Tic. A.Ş.

Commodity Group

Sliding Door Mechanisms, Sliding Door Tracks, Door Checkarm, Glass Channels, Hinges, Latches, Wedges, Bumper, Door Frames, Body Profiles, Fuel Cap Protection, Fuel Filler Stopper, Door stop

Location

Bursa / Turkey

Headquarters & Branches Addresses
BTSO Organize Sanayi Bölgesi Yesil Cad.
No.15, 16159 Nilufer /Bursa

Phone: +90 224 243 75 70 Fax: +90 224 243 87 67

Website

www.rollmech.com

Contact Person

İlker Demirayak / R&D Manager

Personal Mail

ilker.demirayak@rollmech.com

Interests

- Composite Materials
- Innovative Materials
- Intelligent Materials
- New plastic roller materials
- Additive Manufacturing
- Door Closing Effort (new lubrications)
- Module Design & System Design
- Automotive Wide New Products
- Attachment & Assembly Technologies
- Coating technology
- Materials which can replace steel

Capabilities

- Concept Development
- Full Service Supplier, Benchmarking,
- 3D Modelling in CATİA, UG, SWAN& Teamcenter& KVS connection Engineering Design
- Co-design capability
- Inhouse CAE Calculation (Hyperworks, Copra Rollform) Virtual Product
- Stiffness, strength; dynamic impacts
- Operating Effort, Motion kinematic study Model and Prototype
- Inhouse Tooling, Inhouse Prototype
- 3D Printer / 200x200x180 mm Validation and Verification
- Hinges tensile strength Test, hinge durability test bench
- Sliding door durability bench, opening-closing effort measurement measurement
- Salt Spray Test Station
- Silent room for noise / vibration measurement
- 3D Scanner (Römer Absolute), 3D





Rözmaş Çelik Sanayi ve Ticaret A.Ş.

Commodity Group Rözmaş Group

Location

Gebze Organized Industrial Zone Headquarters & Branches Addresses GOSB 900. Street Nu: 903 41480 Gebze Kocaeli / Turkey"

Phone: +90 262 677 13 00 Fax: +90 262 677 13 99

Production Site / Capacity 29.000 m²

Website

www.rozmasgroup.com/rozmas_celik/index.html

Contact Person

Natali Demircioğlu / Sales and Business Development Coordinator

Personal Mail natali@rozmas.com.tr

Interests

- Stabilizer Bar Bending Technologies
- Helical Spring Coil (hot/cold) Technologies
- Precision Springs Coil Technologies
- Innovative Materials
- Shot Peening Operations
- Bonding Technologies
- NVH Improvement
- Corrosion Resistance Metal Metarials
- Automation Technologies
- Cost Reduction
- Painting Technologies
- Module Design & System Design
- Forging Technologies
- Final Element Analysis
- · Heat Treatment
- Composite Materials for Stabilizer Bar and Spring

Capabilities

Engineering / Tooling Design

- Co-design, Tailor Made, Inhouse
- Progression Tooling
- Hot & Cold Bending Tooling
- Mold & Dies
- Jigs & Fixtures
- · Manufacturing

R&D Center Capabilities

- Service Supplier, Benchmarking
- 3D Modelling, which productible parts in company
- Inhouse Tooling
- Inhouse Prototype

Validation and Verification

- · Profile Performance Test, Inhouse
- Validation Testing, Equipment
- Calibration
- Heat Treatment



- CNC Bending Technologies
- New Assembly Technologies
- Co-Design
- Alternative Materials Technologies

Stab Bar Capabilities





Spring Capabilities







(V)RÖZM/S Infotweight is our future

R&D Test Center



Quality Laboratory









SincoTech 4 spring Fatigue Test





SARIGÖZOĞLU Hidrolik Kalıp ve Makina Sanayi A.Ş.

Commodity Group

Production of tool and sheet metal stamping

Headquarters & Branches Addresses

Sarıgözoğlu Tooling Plant Design Center

Organize Sanayi Bölgesi 3. Kısım, Necip Turagankur Cad. No: 2, Manisa - TURKEY

Phone: +90 236 213 07 60 Fax: +90 236 213 07 59 info@sarigozoglu.com.tr

Manisa Stamping Plant

Organize Sanayi Bölgesi 2. Kısım, Mustafa Kemal Bulvarı No: 7, Manisa - TURKEY

Phone: +90 236 233 70 50 Fax: +90 236 233 70 47

Aksaray Stamping Plant

Erenler OSB Mah. 2.Sokak No: 5/A

Aksaray - TURKEY

Phone: +90 382 266 20 97 -98

Fax: +90 382 266 20 99

Bursa Stamping Plant

Organize Sanayi Bölgesi, Eflatun Cadde No: 7

Bursa - TURKEY

Phone: +90 224 242 34 64 Fax: +90 224 242 36 56

Interests

- Part and Product Design
- Sheet Metal Forming
- Development in Welding Technology
- Development in Materials Technology
- Robot Software Optimization
- Hot Forming Tool Technology

Cluster Opportunities

- Feasibility Analysis
- Design Process
- Tool Manufacture
- Safety Parts
- · Chassis Parts
- Body In White
- Skin Panels
- Structure Parts
- · Assembly Technologies

Capabilities

- AutoForm Analysis
- Method
- Planning
- Tooling
- Die design and Manufacturing
- · Checking Fixture
- Welding Fixture
- 5X Laser
- Fixture Design and Manufacturing
- Reverse Engineering with ATOS
- Styrofoam Model
- Wire Erosion
- Sheet Metal Stamping
- Welding processes for assemble the parts
- Co-Design



DESIGN CENTER Manisa Tooling Plant



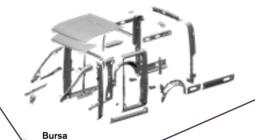
















Manisa Tooling Plant

Aksaray Stamping Plant Manisa Stamping Plant

Stamping Plant







ISO 9001 ISO 14001 ISO 16949



2005 Manisa 2018 Bursa





Sema Plastik Kalıp ve Makine San. ve Tic. Ltd. Şti.

Commodity Group
Automotvie, White Goods and other

Location

Tekirdağ

Headquarters & Branches Addresses
Phone: +90 282 746 12 73-74
Fax: +90 282 746 11 01

Website

www.semakalip.com.tr

Contact Person

Semih Güçbilmez / Owner

Personal Mail

sgucbilmez@semakalip.com.tr

Interests

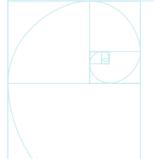
- Injection Mold
- Plastic injection
- Composite materials
- WPC
- 2K injection

Capabilities

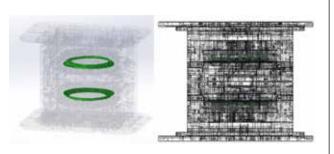
Engineering Design

- 3D Modelling, Parts and Mold
- Plastic Production
- Inhouse Tooling, Inhouse Prototype
- Manufacturing

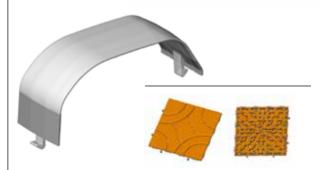
- Automotive
- White goods
- Others

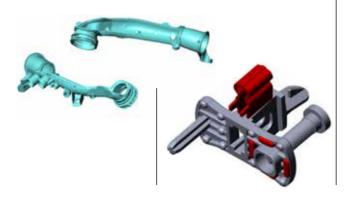


















SIO Automotive Taşıt Yedek Parça San. ve Tic. A.Ş.

Commodity Group

Automotive Steering & Suspension Parts

Location

Tekirdağ / TURKEY

Headquarters & Branches Addresses Ulaş OSB Mahallesi 207. Sokak No:30-32/2 ve No:3 0-32/3 Ergene -Tekirdağ / TURKEY

Phone: + 90 282 684 10 10 Fax: + 90 282 684 10 02

Production Site / Capacity
27.100 m² closed area
5.500.000 piece per year

Website

www.sio-automotive.com

Contact Person

Andaç TANSUĞ / R&D Director

Personal Mail

a.tansug@sio-automotive.com

Interests

- Aluminium & Steel & Sheet Metal Control Arms
- Ball Joints Leaf Type
- Ball Joints Cassette Type
- Tie Rod Ends Inner Thread
- Tie Rod Ends Outer Thread
- Stabilizer Links
- Draglinks
- · Axial Joints
- Wishbone
- Bushings

Cluster Opportunities

- · Automotive suspension parts
- Automotive steering parts

Capabilities

Design & Simulation & Analysis

- Reverse Engineering
- Co-design
- 2D / 3D Modelling
- Finite Element Method
- ANSYS Workbench
- Sheet Metal Forming Analysis

Process & Manufacturing

- Forging
- Machining
- Welding
- Thread Rolling
- Moulding
- Cataphoresis coating
- Sheet forming

Testing & Validation

- Mechanical Tests (Yield, Strength, Alongation...)
- Salt Spray Test
- CMM
- Durability Test

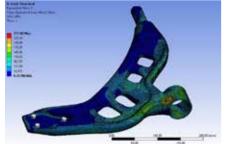


















Sistem Teknik Industrial Furnaces Ltd.

Commodity Group
Industrial Furnaces

Location

Kocaeli, Turkey

Headquarters & Branches Addresses
TOSB-TAYSAD 1. St Avenue
14. Th Street Number: 3
Gebze - Kocaeli / TURKEY

Phone: +90 262 658 22 26 Fax: +90 262 658 22 38

Website

www.sistemteknik.com

Contact Person
Mine Şener / R&D Specialist

Personal Mail mine.sener@sistemteknik.com

Interests Capa

Aluminium & Non-Ferrous Metal Industry

- Aluminium Cast Houses
- Aluminium Foil/Coil Annealing Furnaces
- Extrusion Line Furnaces
- Composite Autoclaves and Ovens
- Special Process Furnaces

Capabilities

Concept Development and Styling

- 3D Modelling Software and Simulation
- CFD Analysis

Model and Prototype

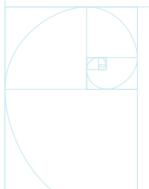
• Inhouses Prototype

Engineering Design

• Tailor Made, Inhouse

Electric Design

- Electric Panel Design and Production
- Electric Project Design
- Automation System Design







Sistem Teknik Industrial Furnaces Inc.

Commodity Group
Industrial Furnaces

Location

Kocaeli / Turkey

Headquarters & Branches Addresses
TOSB – Otomotiv Yan Sanayi İhtisas
OSB 1. Cad. 15 Yol No : 1, 41420
Çayırova / Kocaeli / TÜRKİYE

Phone: +90 262 658 29 14 Fax: +90 262 658 18 19

Production Site / Capacity
Kocaeli / 7500 m² closed area
(total 10 000 m² area)

Website

www.sistemteknik.com

Contact Person

Levent Sindel / Board Member

Personal Mail

leventsindel@sistemteknik.com

Interests

- Vacuum Furnaces
- Leaf Spring Production Lines
- Fire Resistance Test Furnaces
- Roller Hearth Furnaces and Heat Treatment Lines
- Mesh Belt Furnaces with Protective Atmosphere
- Gas Generators
- Diaphragm Heat Treatment Lines
- Microwawe Furnaces
- Custom Design Heat Treatment Lines

Cluster Opportunities

- · Vacuum Furnaces
- Sealed Quench Furnaces and Lines
- · Fire Resistance Test Furnaces
- · Roller Hearth Furnaces
- Leaf Spring Manufacturing Furnaces
- Continuous Heat Treatment Lines
- Heat Treatment Equipment Subsystems
- Software Programs and Automation

Capabilities

Engineering and Design

- 2D&3D Modelling
- CAD-CAM
- Simulation and Analysis

Laboratory Capabilities

- Temperature Homogeneity Test
- Leak Detection Test
- Hardness Test
- System Accuracy Test
- Flue Gas Analysis
- · Penetration Test

Product and Process development

- Prototype Design
- Manufacturing & Assembling In-house
- Curing Furnace In-house

Validation and Verification

- Calibration
- Electronic, Mechanic & Performance Tests In-House

Heat treatment

Automation and Programming











S.K.T. Yedek Parça ve Makina San. ve Tic. A.Ş.

Commodity Group
Sealings Elements

Headquarters & Branches Addresses BTSO Org. San. Böl. Ali Osman Sönmez Bul. No:17, 16159 Nilüf / BURSA

Phone: +90 224 243 41 00 Fax: +90 224 243 14 24

Production Site / Capacity 35.000.000 qty

Website

www.skt.com.tr

Contact Person

E. Timuçin BIYIKCI / R&D Director

Personal Mail timucinbiyikci@skt.com.tr

Interests

- Dynamic Sealing Elements
- Static Sealing Elements
- Anti-vibration Parts
- · Cassette Seals
- · PTFE Seals
- Rubber Materials
- Plastic Materials
- Composite Materials
- Sheet Metal Forming
- Innovative Product Design

Capabilities

Concept Development and Design

- Benchmarking
- 3D Modelling
- Co-design
- Finite Element Analysis

Material Development

- Stress Relaxation Tests
- Tribology Tests
- Rheological Tests

Model and Prototype

- Inhouse Tooling
- Inhouse Prototype

Validation and Verification

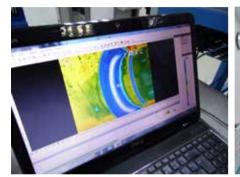
- Metrology Laboratory
- Life Tests
- Anti-vibration Function Tests
- Shear Tests
- Climatic Tests

Cluster Opportunities

• Sealing Elements
Anti-vibration Parts





















Standard Profil

Commodity Group Sealing Systems

Location Düzce

Headquarters & Branches Addresses

İstanbul/Headquarter: Tekfen Ofispark C1&C2 Blok Merkez Mah. Bağlar Sok. No: 14/3 Kağıthane 34406. İstanbul / TURKEY

Düzce 1/Factory: Şehit Hüseyin Kıl Mahallesi, Santiye Sok. No: 44 Düzce / TURKEY

Düzce 2: Hamamaltı Mevkii Konuralp 81620 Düzce / TURKEY

Manisa 1: MOSAB 3. Kısım Mustafa Çapra Cad. No:1 45030 Manisa / TURKEY

Manisa 2: OSB 1. Kısım Sakarya Cad. No: 7 45030 Manisa / TURKEY

Spain: C/La Cadena - Varea nº43 Barrio de Varea - Pol. Ind. La Portalada 26006 Logroño / SPAIN

Fas: Lot 2, Ilot 30, TFZ 90000 Tanca / FAS

Bulgaria: 12 Nikola Petkov str. 6000 Stara Zagora

South Africa: 33 Industria Ring Road - Parow Industria 7493 Cape Town

Mexico: Av. Guanajuato 100 Parque Industrial Amistad Bajio 38160 Apaseo El Grande China: No. 58 Hehua Road, Langfang Economic and Technology Zone 065001 Langfang

USA/Design Office: 27300 Haggerty Road, Suite

F5 Farmington Hills 48331/Detroit

France/Office: 24 rue Jean Duplessis

78150 Le Chesnay Paris

İtaly/Office: Via Torino, 84b 10073

Ciriè - (TO) - ITALY

Germany/Office: D-38446 Wolfsburg

Germany/Office: P 4, 1 D-68161 Mannheim

Germany/Office: Spessartstraße Tor 54,

50769 Köln

Phone: +903805412091 Fax: +90 380 541 24 66

Production Site / Capacity

NA

Website

www.standardprofil.com

Contact Person

Dr. Ali Erkin Kutlu / Group R&D Director

Personal Mail

aekutlu@standardprofil.com

Interests

- Composite Materials (weight reduction)
- Innovative Materials (weight reduction)
- Intelligent Materials (self healing, resistant)
- · Characterisation of EPDM and TPV
- Passenger Comfort
- Door Closing Effort
- NVH Improvement
- Industry 4.0 in Extrusion Management
- Attachment & Assembly Technologies
- Thermal Management: UV Stability
- Module Design & System Design
- Recycling Technologies
- CFD Simulation Cross Flow
- Recycling Technologies
- Injection Modelling
- Traceability Systems for Production
- Online sensorization for cure state
- Curing State Modelling
- Performance coating



Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking,
- 3D Modelling, Interior/Exterior Parts

Engineering Design

- Co-design, Tailor Made, Inhouse
- Compounding/Formulation

Virtual Product

- Acoustic performance, Door Closing
- Door Closing Effort
- Modelling and Prototyping
- Inhouse Tooling

Manufacturing

- Validation and Verification
- Profile Performance Test, Inhouse
- Validation Testing, Equipment
- Calibration, Aging Validation

- Sealing Systems
- Body Closures
- Improvement of TPV based products
- Improvement of Rubber Based Products
- Vehicle Roof Technologies
- Coating Applications











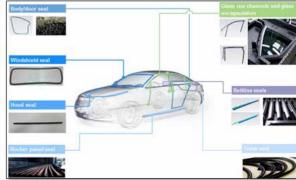












Supsan Motor Supapları Sanayi ve Ticaret A.Ş.

Commodity Group
Various Automotive Components

Location

İstanbul/Turkey

Headquarters & Branches Addresses Halkalı cad. No: 158 Sefaköy Küçükçekmece / İstnabul / TURKEY

Phone: +90 212 336 32 00 Fax: +90 212 592 72 68

Production Site / Capacity
15.432 m²/248 Employees

Website

www.supsan.com/

Contact Person Seçkin Özkurt / R&D Manager

Personal Mail sozkurt@supsan.com

Interests

- Steel Materials
- Forging Process(Extrusion, upset)
- Welding (friction, seat, stellite)
- Heat Treatment of Steel
- Chromium-Plating
- Assembly(Manual)
- Robotic Technologies
- Test Validation
- Industry 4.0
- Hybrid Electric Vehicle (HEV)
- Plug-in Hybrid Electric Vehicle (PHEV)
- Battery Electric Vehicle (BEV)

Cluster Opportunities

- Engine Valve
- Turbochargers
- Hybrid Electric Vehicle (HEV)
- Plug-in Hybrid Electric Vehicle (PHEV)
- Internal Combustion Engine Parts
- Battery Electric Vehicle (BEV)

Capabilities

Concept Development and Styling

- Full Service Supplier
- Benchmarking
- · Reverse Engineering
- 3D Modelling

Engineering Design

- Materials Compounding/Formulation
- Part Design
- Process Design
- Mold Design
- Finite Element Analysis (FEM)
- Machine Design
- Computational Fluid Dynamics (CFD)

Model and Prototype

- 3D Printing
- Inhouse Tooling, Inhouse Prototype
- Manufacturing

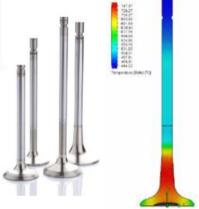
Validation and Verification

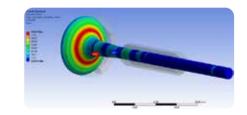
- Engine Performance Test, Inhouse
- Validation Testing, Equipment
- Engine Parts Life Test
- Advanced Laboratory Tests
- Turbocharger Testing

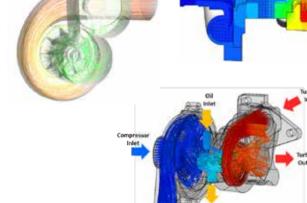
















Suptek Yağ Keçeleri San. ve Tic. A.Ş.

Commodity Group
Sealing Elements

Location İstanbul

Headquarters & Branches Addresses IDOSB 3.Yol No:11 34956 Tuzla / İstanbul

Phone: + 90 216 451 73 23 Fax: + 90 216 377 22 02

Production Site / Capacity 10.000.000 pcs/year

Web Site

www.suptex.com

Contact Person

Dr. Zişan Ünsalan / R&D Center Manager

Personal Mail

zisan.unsalan@suptex.com

Interests

- Dynamic Sealing Components
- Static Sealing Components
- Rubber Gaskets
- Rubber-Metal Bonded Parts
- Cassette Seals
- · PTFE Seals
- Innovative Product Design
- Hydraulic&Pneumatic Parts
- Oil Seals
- Axle Seal
- Transmission Seal
- Caliper Housing Gasket
- · Sensor Shaft Seal
- Washing Machine Seal
- · Crankshaft Seal

Cluster Opportunities

• Sealing Systems

Capabilities

Concept Development and Styling

• Finite Element Analysis, 3D Modelling, Benchmarking

Engineering Design

• Co-design, Tailor Made, Inhouse

Material Development

- Compound Development
- Rheological Tests, Density, Hardness, Ash Content Determination
- Tensile Strength, Elongation, Tear Strength Determination
- Bonding Strength, Abrasion Resistance Test
- Compression Set Test, Rebound Resilience Determination
- Flex Fatigue Determination, Water/Steam Resistance Test
- Chemical/Thermal Aging Tests

Model and Prototype

Inhouse Tooling, Inhouse Prototyping

Validation and Verification

- Inhouse Life Test, Validation Testing
- Cross Section Profiling, Radial Force Measurement
- Stereo-microscopic inspection, Endoscope Imagery
- Surface Roughness Measurement, Thermal Camera Reading
- Proprietary Apparatus Design

Suptex



Şafak Makina Yedek Parça San. ve Tic. A.Ş.

Commodity Group
Fluid Connection and Machining
Components

Location

Istanbul & Düzce

Headquarters

Tem Yan yolu, Eyüp Sultan Mah. Yücedağ Cad. Sandalcı Sok. No: 8 Pk:34885 Sancaktepe - İstanbul / Türkiye

Manufacturing

2. Organize San. Bölgesi 1. Sok. Dışkapı No:1/A Pk. 81600 Beyköy - Düzce / Türkiye

Phone: +90 216 311 79 50 Fax: +90 216 311 79 54 or 55

Production Site / Capacity 25,000 m²

Website

www.safak.com

Contact Person
Uluc SUNGUR

Personal Mail usungur@safak.com

Interests

- Tube and hose assemblies.
- Power steering hose assemblies
- Compressor line tube and hose assemblies.
- · Oil tubes
- Rocker arms and Shafts
- Engine Coolant tubes (steel and aluminium)
- Welding & Brazing
- Automation
- Bending machines
- Tube end froming machine
- 5 axis dental machining center
- Tube roll forming machine

Capabilities

Engineering Design

- Computer aided Design (CAD)
- Computer aided Engineering (CAE)
- Product Development from virtual design till Serial Production
- · Benchmarking

Manufacturing

• Precision Machining, 5 axis CNC, horizantal and vertical CNC centers, Arc welding induction welding, hot forging

Model and Prototype

- · Inhouse Tooling
- In house tube checking fixture, welding fixture
- Prototype shop for development products

Validation and Verification and Laboratory Capabilities

- Burst Test
- Validation Testing, Equipment
- 3D and Form Measuring
- X-ray Coating measuring
- Surface Roughness and Profile Projection
- Salt spray test























Takosan Otomobil Göstegeleri Sanayi ve Ticaret A.Ş.

Commodity Group
Automotive Electronics,
Plastic Injection Parts

Headquarters

TOSB 1. Cadde, 12. Sokak, No: 3, 41420, Şekerpınar, Çayırova, Kocaeli / TURKEY

Romania Plant:

Sat Valeni Podgoria Nr. 364-a Calinesti, 117207 Arges, Romania

Phone: +90 262 781 50 00 Fax: +90 262 658 30 70

Production Site / Capacity
TOSB Plant & Pitesti Plant / Capacity
project specific defined

Website

www.takosan.com.tr

Contact Person

Dinçer Serin / Assistant General Manager – Business Development & Sales

Personal Mail dincer.serin@takosan.com.tr

Interests

Automotive Electronics

- Instrument Clusters
- Electronic Modules
- HMI & Infotainment Systems
- Fuel Level Sensors
- Power Management
- Touch System Solutions
- Battery Management System
- Assembly Technologies Development
- Connectivity (V2V)
- ADAS
- Mobility

Industry 4.0

Plastic Injection Parts

- Interior / Exterior Plastic Parts
- Decorated Plastic Parts
- Transparent & Lightguide Plastics
- Plastic Part Assemblies
- Plastic Processing Technologies (Inmould - Overmould - Welding)
- Lightweighting solution

Composite materials

Cluster Opportunities

- Body Electronics
- Infotainment Systems
- Plastic Injection Parts

Capabilities

Concept Development & Styling

- Co-Design, Tailor Made, Benchmarking
- Styling
- 3D Modelling

Engineering Design

- Full Service Supplier
- Finite Element Analysis, Moldflow
- Embedded Electronic Hardware Development & Production
- Embedded Software Development (Automative Spice)
- Mechanical Hardware Development & Production

Process Design

- Assembly Process Equipment Design
- Visual Control Systems Design
- Electronic Control Systems Design
- Manufacturing Process Simulation

Tooling & Prototype

- Inhouse Tooling
- Inhouse Prototype
- Rapid Prototyping

Validation & Verification

- Electronic, Mechanic & Environmental Performance Tests
- Validation Tests
- HIL (Hardware in the Loop)
- SIL (Software in the Loop)







Takosan has been awarded with prestigious CLEPA Innovation Award in 2019 for its instrument cluster developed for 2019 ITOY winner truck Ford F-Max













Teklas Kauçuk San. Tic. A.Ş.

Commodity Group
Automotive Supplier Industry

Headquarters

Barış Mah. Koşuyolu Cad. 1804/2 Sok. No: 26 P.K. 41400 Muallimköy Gebze - Kocaeli / TÜRKİYE

Branches Addresses

GOSB İhsandede Cad 300. Sok No:4 P.K.41400 Gebze - Kocaeli / TÜRKİYE

GOSB İhsandede Cad No: 121 P.K. 41400 Gebze - Kocaeli / TÜRKİYE

Bartın Organize Sanayi Bölgesi P.K. 74100 Bartın / TÜRKİYE

Teklas Bulgaria Ad Industrialna Zona Yug Kardiali / BULGARIA

Changxing Economic & Technological Development Zone; Development Avenue No: 199 Zhejiang Province / P.R. CHINA

Herrenbergerstrasse 12, 71032, Böblingen / DEUTSCHLAND Industijska Zona BB 17510 Vladicin Han Sirbistan

Phone: +90 262 648 44 00 Fax: +90 262 641 79 63

Website

www.teklas.com.tr

Contact Person
Serkan Çağlar Ünal /
R&D Center Director

Personal Mail sunal@teklas.com.tr

Interests

- Fluid Circulation Systems
- Light Weight Materials
- High Tech Production Techniques
- EV & Hybrid Technologies
- Battery Cooling Technologies
- Robotic Production Cells

Capabilities

Concept Design & Development

- Development according to customer specifications
- 3D modelling
- Benchmarking & Prototyping

Simulation & Engineering

- Finite Element Analysis
- Computational Fluid Dynamics
- Acoustic Simulations

Process & Machining Development

- In house machine & process design
- In house machine & equipment production

Validation & Testing

- Product & Material Performance Tests
- Homologated by Customers
- 7/24 Testing Capability



Cluster Opportunities

• HVAC Systems

















Teknik Kimya Donatım Makine Enerji Sanayi ve Ticaret A.Ş.

Commodity Group

Release agents, Colorants for polyol (Masterbatch), sprey paints for polyurethane surface and artificial leather / leather, defoamers, polymers and special chemical auxiliaries

Location

Production Plant and R&D Centers

Headquarters & Branches Addresses Akçaburgaz Mah. 3137. Sok. No:10 Esenyurt / İstanbul – TURKEY

Phone: +90 212 886 73 04 Pbx Fax: +90 212 886 73 21

Production Site / Capacity

Manufacturing on an area of 7000 m² A total manufacturing capacity of 10000 ton/year

Website

www.teknikkim.com.tr

Contact Person

İlker Akça / R&D and Projects Manager

Personal Mail

ilkerakca@teknikkim.com.tr

Interests

Related Sectors

- Polyurethane Systems
- Automotive and Furniture
- Footwear Industry
- Construction
- Textile
- Plastics
- · Detergant and Paint

Products

- Release Agents (Solvent and water based dilutable concentrates)
- Liquid Colorants for Polyurethane Systems
- In Mold Coatings (Solvent and water based)
- Mold Preparing Products
- Mold Cleaners
- Defoamers (Oil, Silicon, Polimeric based)
- · Food Packaging Varnishes
- Plastic Surface Paints
- Polymers for Plastic
- Performance Chemicals

Capabilities

Research And Development

- Project Management
- Benchmarking
- Custumized Solutions and Specialty Products
- Synthesis
- Sustainable Products
- Quality Improvement
- Cost Saving
- Product Improvement
- Process Development

Prototype and Application

- Simulation
- Pilot Reactor Trials
- Modern Laboratory Equipments
- Applications with Polyurethane Machine
- Using new Application Technology
- Tests

Laboratory capabilities include:

- Physical Testing Methods
- Wet Chemistry
- GC Analysis
- DSC Analysis
- FT-IR Analysis
- Particle Size Analysis



- Artificial Weathering
- Life Cycle & Durability
- Color & Color Strength Determination
- Rheologycal Measurements

- Releasing Agents for Polyurethane Systems
- Colorants for polyol (Masterbatch) and pigment pastes
- Sprey paints
- Varnishes
- Defoamers for textile and plastic systems
- Performances Chemicals
- Chemical Auxiliaries
- Polymers



















Tekno Kauçuk Sanayii A.Ş.

Commodity Group NVH, rubber components

Location

Kocaeli/ Turkey

Headquarters & Branches Addresses

GOSB, İhsan Dede Caddesi Doğan Lastik Fabrikası No:126, 41480 - Kocaeli Phone: +90 262 999 2100 Fax: +90 262 751 0566 - 0570

Düzce Caddesi Şimşir Mahallesi. No: 12 81900 Kaynaşlı - Düzce

Kenan Evren Sanayii Sitesi Güzelyurt Mah. 5760 Sk. No.12/A - Manisa

Tekno RC - Canela 350 08400 Mexico City - Mexico

Production Site / Capacity
GOSB - 32.000.000 product/year
TOSB - 7.000.000 product/year
Manisa - 450.000 product/year

Website www.teknokaucuk.com.tr

Contact Person
Volkan ERTEM / R&D Director

Personal Mail vertem@teknokaucuk.com.tr

Interests

- Rubber Materials
- Composite Materials
- Engine Mounts
- Transmission Mounts
- Aerospace Components
- Automotive Products
- NVH

Cluster Opportunities

- Automotive Components
- Design Partner
- Characterisation laboratory
- Validation laboratory

Capabilities

Concept Development & Engineering

- Component design for automotive, home appliances and aerospace industries
- 3D modelling using CATIA, Ansys Spaceclaim
- 3D Data quality checks using VWGRC lite
- Computer Aided Engineering and FEA analysis using MSC Patran, MSC Marc, MSC Mentat
- Compounding/Formulation
- Product development

Prototype Production

- Inhouse prototype mold design and manufacturing
- Inhouse prototype production

Validation and Verification

- Accredited shock and vibration tests according to MIL-STD standards
- Up to 3 axis 600 Hz dynamic and quasistatic characterization tests. (Static stiffness, dynamic stiffness, loss angle)
- High Frequency Dynamic Characterization Test (up to 2800 Hz)
- Shock and vibration tests combined with climatic conditions (-70°C-180°C)
- Saltspray corrosion test
- Multi-axial RLD durability test using MTS-cRPC Pro Software
- Up to three axis sinusoidal hot durability test
- 16 channel data acquisition system (up to 200kHz)
- Modal test























Teknorot Otomotiv Ürünleri San. ve Tic. A.Ş.

Commodity Group
Suspension And Steering System
Components
Sheet Metal Wishbone, Track Control
Arm, Axial Joint, Ball Joint, Tie Rod
End, Stabilizer Link, Rubber Bush

Location DÜZCE

Headquarters & Branches Addresses

Headquarters; Huzur Mh. Cendere Cd.
No: 114B Skyland İstanbul B Ofis Blok
Kat:5 Ofis: 85
Sarıyer / İstanbul / TÜRKİYE
Factory; 1. Organize Sanayi Bölgesi

1. Cadde No: 5 Bevköv / DÜZCE

Phone: +90 380 553 73 33 Fax: +903 80 553 73 63

Production Site / Capacity
25 million unit / year

Website www.teknorot.com

Contact Person Fatih Çağırankaya / R&D Project Manager

Personal Mail fatih.cagirankaya@teknorot.com

Interests

- Suspension System Design
- Suspension System Design
- New Product Design and Prototype Technologies
- Sheet Metal Forming Technologies
- Forging Technologies
- Test and Validation
- Composite Materials
- Innovative Materials
- Attachment & Assembly Technologies
- Module Design & System Design
- Industry 4.0
- Additive Manufacturing
- Lean Management
- Advanced Materials
- Advanced Coatings
- Innovative Processes
 - Sheet metal forming
 - Forging
 - Machining
 - Cataphoresis
- Sensor Applications IoT

Capabilities

Engineering Design

- Benchmarking
- Material Analysis
- Consept Design

Model and Prototype

- 2D & 3D Model
- Tooling Manufacturing
- Prototype Manufacturing

Advanced Engineering

- Finite Element Analysis And Simulation
 - Structural Analysis ANSYS Workbench
 - Sheet Metal Forming Analysis Autoform
 - Forging Analysis Simufact
 Estima Life Analysis nCode Design Life
 - Fatigue Life Analysis nCode DesignLife
 Material Management CES Selector

Test, Validation and Verification

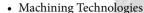
- Product Performance Testing
- Equipment Calibration
- Product Life Testing
- Material Mechanical and Chemical Testing
- Image Analysis
- 3D Scanning
- 3D CMM Measurement

Knowledge Management

- Enterprise Resource Planning IFS
- Team Center

Technology Development

- Sheet Metal Forming Technologies
- Forging Technologies



- Coating Technologies
- Assembly Technologies

Process Analysis And Improvement

- MTM (Method Time Measurement)
- Line Balancing
- Assembly Line Design
- Process Simulations
- Capacity Analysis
- Human Machine Diagram
- Method and Time Study

Test Metod Development

Product Improvement

Technical Support

Supplier Support Costumer Support

- Suspension System Components
- Steering System Components
- Automotive Sheet Metal Components
- Automotive Forging (Steel and Aluminum) Components
- Advanced Manufacturing Advanced Materials Advanced Engineering Plastics
- IoT applications Additive Manufacturing













Tırsan Treyler Sanayi ve Ticaret A.Ş.

Commodity Group
Trailer and Semi-Trailer Manufacturing

Location

SAKARYA

Headquarters & Branches Addresses Adliye Köyü 1520 Nolu Sk. No: 3 Arifiye / SAKARYA

Phone: +90 264 295 30 00 Fax: +90 264 319 25 58

Production Site / Capacity 365,000 m²

Website

www.tirsan.com

Contact Person
Tugay Yılmaz / R&D Coordinator

Personal Mail tugay.yilmaz@tirsan.com

Interests

- Semi Trailer
- Aerodynamics
- Load Safety
- Composite Materials
- Innovative Materials
- Lightweight Materials
- Welding and Welding Technologies
- Steering Systems
- Axle and Suspension Systems
- · Coating and Painting
- · Vehicle Dynamics
- Corrosion Protection
- Robotics Systems for Welding and Painting
- Industry 4.0
- CAD and CAE
- Rapid Prototyping

Capabilities

Concept Development and Styling

- · Concept Design, Benchmarking,
- 3D CAS & CAD Modelling

Product Design and Development

- Detailed 2D and 3D Design
- Virtual Product Development
- Computer Aided Engineering, Analysis and Simulations
- Prototype Production
- Manufacturing Engineering

Validation and Certification Testing

- Fatigue Testing on Bench
- Functional Validation Testing
- · Accelerated Durability Testing
- Homologation and Certification Testing

- · Lowbed Semi Trailer
- Curtainsider Semi Trailer
- Frigoriphic and Box Semi Trailer
- Tanker Semi Trailer
- Silobus Semi Trailer
- Tipper Semi Trailer
- Container Chassis Semi Trailer
- Design and Development
- Prototype Production
- Validation&Verification

TIRSAN











Tirsan Kardan A.Ş.

Commodity Group

Propshaft, Steering Column, Transmission & Axle Flanges

Location

Manisa/TURKEY

Headquarter

TIRSAN KARDAN

Atatürk Cad. No: 7, 1. Kısım M.O.S.B Manisa 45030 - TURKEY

Branches

TIRSAN KARDAN 2:

Mustafa Kemal Blv. No 15, 3. Kısım M.O.S.B Manisa 45030 TURKEY

TIRSAN KARDAN RUSSIA:

KIP "Master", Promkomzona, ABP-2, Office 213 Naberezhnye Chelny Republic of Tatarstan 42380 - RUSSIA

R&D CENTER:

Mustafa Kemal Blv. No 15, 3. Kısım M.O.S.B - Manisa - 45030 TURKEY

Phone: +90 236 2330596 Fax: +90 236 2331013 Production Site / Capacity

49,500 m² Total

Hot Forging

Component Manufacturing

Cardan Shaft Production

Website

http://www.tirsankardan.com.tr/

Contact Person

Aksel Gürkan / Sales & Marketing Manager

Personal Mail

a.gurkan@tirsankardan.com.tr

Interests

- Propshaft & Components
- Steering Columns
- Transmission & Axle Components
- Hot Forging Dies
- · CV Joint
- Universal Joint
- Tooling
- Steel & Aluminum Forging
- Composite Materials
- Surface Treatment
- Heat Treatment
- Advanced Manufacturing Methods
- New Welding Technologies
- · Rapid Prototyping
- Driveline Validation Test Methods
- Robotics & Computer-Integrated Manufacturing
- Smart Mobility



Capabilities

Manufacturing:

- Hot Forging
- Friction Welding
- CNC Machining
- Propshaft High Speed Balancing
- Painting & Coating

Engineering:

- Concept Design
- CAD, 3D Modelling, Virtual Prototype
- CAE, Virtual Validation
- Data Acquisition
- Die/Fixture Design & Manufacturing

Product & Process Validation Capabilities

- Endurance Tests
- NVH Tests
- Strength Tests
- Environmental Tests

- Light & Heavy Commercial Vehicle Applications
- MOH Vehicle Applications
- Military Vehicle Applications
- Industrial Shaft Applications







TKG Otomotiv San. Tic. A.Ş.

Commodity Group
Body and Chasis Parts

Location

Bursa / TURKEY

Headquarters & Branches Addresses

BOSB Plant: Bursa Organize Sanayi Bölgesi Ali Osman Sönmez Bulvarı No:13, 16140 Nilüfer / Bursa

Çalı Plant: Çalı Sanayi Bölgesi Beyaz cadde N0: 11, 16235 Nilüfer / Bursa

Alaaddinbey Plant: Alaaddinbey Mahallesi 621. Sokak N0: 3, 16120 Nilüfer / Bursa Phone: +90 224 241 36 38

Fax: +90 224 482 39 34
Production Site / Capacity

23379m²/423 employees

Website

www.tkg.com.tr

Contact Person

Mehmet Eroğlu / R&D Manager

Personal Mail mehmet.eroglu@tkg.com.tr

Interests

- · Composite Materials
- Innovative Materials
- NVH Improvement
- Vehicle Acoustics
- Multi Layer Heat Shields
- Stamping Parts with Advance Material
- Crash Dynamics
- Automotive Manufacturing Technologies
- Welding Technologies

Capabilities

Concept Development and Styling

- · Benchmarking
- 3D Modelling, CAD-CAE

Model and Prototype

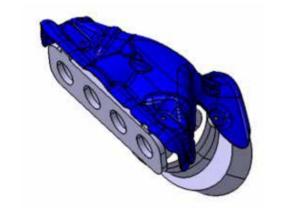
- · Inhouse Tooling
- Inhouse Prototype and Manufacturing

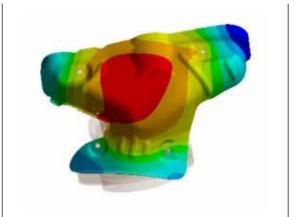
Validation and Verification

- Sound Absorption Coefficient Measurement (Alpha Cabin)
- Transmission Loss Measurement (Alpha Cabin)
- Tensile Test
- Ultrasonic Welding Control
- 3D CMM
- 3D Scanning

- · Heat Shields, Thermoacoustic Shields
- Crash Systems
- Body and Chassis Parts













Toksan Yedek Parça İmalat Ticaret ve Sanayi A.Ş.

Commodity Group BIW

Location

NOSAB- Nilüfer Organize Sanayi Bölgesi, Erguvan Caddesi No:18 Nilüfer - Bursa / TURKEY

Headquarters & Branches Addresses
TOSB - TAYSAD Organize Sanayi
Bölgesi 14. Yol 60 Nolu Parsel
Şekerpınar - Gebze Kocaeli / TURKEY

Phone: +90 224 411 19 50 Fax: +90 224 411 19 59

Website

www.toksanotomotiv.com

Contact Person

Berna Başak Mışıl / R&D Manager

Personal Mail

bmisil@toksanotomotiv.com

Interests

- Module Design & System Design
- Conceptual Design
- Passive Safety Systems
- Pedestrian Safety
- Aluminum Materials
- Weight Reduction

Capabilities

Concept Development and Styling

- Full Service Supplier, Benchmarking,
- 3D Modelling, Interior/Exterior Parts
- Die Design

Engineering Design

- Co-design, Inhouse
- Compounding/Formulation
- Dynamic System Modelling,

Virtual Product

- Structural, Kinematic and Dynamic Analysis
- Forming Analysis
- Optimization

Model and Prototype

- Inhouse Tooling, Inhouse Prototype
- Manufacturing, Assembly Lines

Validation and Verification

- Hinge Performance Test, Inhouse
- Cycle Testing, Inhouse
- Tensile Testing,Inhouse
- Salt Spray Test, Inhouse

Cluster Opportunities

- Door, Hood and Luggage Systems
- Front and Back Bumpers
- Body in White





TOKSAN





Toyota Boshoku Türkiye

Commodity Group

Automotive Seating Systems, Interior Products, Air Cleaner

Location

Sakarya / TURKEY

Phone: +90 264 295 25 25 Fax: +90 264 295 25 26

Website

www.toyota-boshokutr.com

Contact Person

Mehmet Yener Tutluer / R&D Center General Manager

Personal Mail

yener.tutluer@toyota-boshokutr.com

Interests

Products

- Automotive Interior Parts
- Seats
- Interiors
- Door Trims
- Instrument Panel Parts
- Filtration & Power Train Components
- · Air Cleaners

Process Technologies

- Metal Press Technology
- Metal Welding Technology
- Polyurethane Foaming Technology
- Fabric Cutting Technology
- Seat Cover Sewing Technology
- · Seat Assembly Technology
- Plastic Injection Technology
- Vacuum Forming Technology
- Air Filter Technology
- Other Technologies (Automation, Robot, JIT, Industry 4.0, Big data, Traceability)

Capabilities

Product Development

- · Safety and Comfort
- Usage of Plant Derivatives, Bio-composite Materials
- Weight Reduction (New Production Technology and Alternative Material Usage)
- New Product

Process Development

- Environment & Safety (Ergonomics) Improvement
- Quality Improvement
- Productivity Improvement
- Cost Reduction

New Production Technology

- Equipment / Mold Development
- Using New Production Technology

Cluster Opportunities

 Product and/or Process Development for Automotive Interiors





Toyotetsu

Commodity Group
Automotive Chassis, Body and
Assembly Parts

Location

Kocaeli / Turkey

Headquarters & Branches Addresses
TOSB Otomotiv Yan Sanayi İhtisas
Organize Sanayi Bölgesi 5.Cadde No:4
41420 Şekerpınar Çayırova Kocaeli / TURKEY

Phone: +90 262 658 87 10 Fax: +90 262 658 87 17

Production Site / Capacity
2 Manufacturing & 1 Die Factories 45.000 m² Closed Area /
100.000 ton Steel per year

Web Site www.toyotetsu.com.tr

Contact Person
Ebru Barut / Expert R&D Engineer

Personal Mail barute@toyotetsu.com.tr

Interests

- · Advanced Manufacturing Technology
- Welding Technology
- Stamping Technology
- Hot Stamping Technology
- Transfer Pres Technology
- Robot Automotion Technology
- · Component Design Technology
- Industry 4.0
- Virtual Reality Technologies
- Collaborative Robot Technology

Cluster Opportunities

- · Advanced Manufacturing
- · Factories of Future
- Applications Composite Materials
- Dissimilar Material Joining

Capabilities

Welding Applications

- High Strength Steel Welding
- Arc / MIG / Plasma Welding
- Spot / Projection Welding
- Welding Robot Automotion

Stamping Applications

- High Strength Steel Forming
- Hot Stamping
- Transfer / Tandem Stamping
- Laser Cutting

Transfer / Tandem Die Design Computer Aided Engineering

- Structural Analysis and Forming Simulation
- Reverse Engineering

Welding Fixture Design and Simulation

Manufacturing and CNC Machining

Structural Adhesive Applications

Dipping Applications

Quality Applications

- Material Characterization Mechanical Testing
- HER Testing

TOYOTETSU











Ünver Grup Otomativ San. ve Tic. A.Ş

Commodity Group

Rubber Hose,

Silicon Hose,

Plastic Tube.

Metal tube.

Plastic Part

Location

Bursa / TURKEY

Headquarters & Branches Addresses

Kayapa Sanayi Bölgesi Sarı Cd. No:4

Nilüfer-Bursa / TÜRKİYE Phone: +90 224 493 24 32

Fax: +90 224 493 24 35

Website

www.unvergroup.com

Contact Person

Tuna AYDIN / R&D Manager

Personal Mail

tunaaydin@unvergroup.com

Interests

Air Suction Systems

- Dirty Air Duct
- Clean Air Duct

Turbocharge Systems

- Intercooler Inlet
- Intercooler Outlet
- Compressor Outlet

Heating and Cooling Systems

- Radiator Hose
- Cooling Hose, A/C hose

Fuel Systems

- Fuel Tank Filling Hose
- Low Pressure Fuel Hose

Vacuum Hose, Drain Hose

Capabilities

Concept Development and Engineering Design

- Full Service Supplier, Co-Designer
- Benchmarking
- 3D Modelling

Analysis Capabilities

- Static Structural Analyse
- · CFD Analyse
- Acoustic Analyse
- · Mold Flow

Tooling, Prototype and Measurement

- Inhouse Tooling, Inhouse Prototype
- Manufacturing
- 3D Laser Scanner

Validation and Verification

- Impulse Test
- Pressure Resistance Test
- Pressure, Temperature and Vibration Tester (PVT Tester)
- Burst Pressure Test
- Vacuum Test
- Leakage Test
- Moving Die Rheometer
- Tensile, Tear and Adhesion Tests
- Material Adhesion Analyses
- Aging Tests in Air and Fluid Environment
- Melt Flow Index Test



- Rubber Hoses
- Plastic Injection Pipes and Parts
- Plastic Blow Molding Parts
- Metallic Pipe Production
- Plastic Injection and Rubber Molding
- Rubber and Rubber Hose Testing



Valeo Otomotiv Sanayi ve Ticaret A.Ş.

Commodity Group

Location

National Directorate:

Aydınlıkevler Cad. Centrum İş Merkezi No: 3 K: 3-302-303, Küçükyalı Maltepe 34854 İstanbul

Tel: +90 216 587 70 00

Manuel Transmission:

Clutch&Flywheel

Demirtaş Dumlupınar OSB Mah. Istanbul Cad. No: 614 PK: 16245 Osmangazi/Bursa - Turkey

Tel: +90 224 270 56 00

Electrical Systems Alternators Wiper Systems

Thermal Radiator&Fan,

Climate Control

OSB Lacivert Cd. No:12 PK: 16140 Nilüfer/Bursa - Turkev

Tel: +90 (224) 280 26 00"

Phone: +90 224 270 56 00 Fax: +90 224 260 12 04

Production Site / Capacity
Bursa

Website

www.valeo.com

Contact Person

Emre Güran / R&D Manager

Personal Mail

emre.guran@valeo.com

Interests

- Pressure plate and cover assembly, clutch disc and flywheel for tractor, heavy duty and passenger cars
- Transmission systems for hybrid vehicles; torque limitor, vibration isolator
- Electrical Systems; Alternators

Capabilities

Design

Simulation and Analysis

Project Management

R&D Test Facilities:

- Angular fatigue testing machine
- · Axial fatigue testing machine
- Turning Axial fatigue testing machine
- Thermal Test Machine
- Burst Test Machine
- Turning Angular Fatique Test Machine
- Axial Fatique Test Machine Under Rotation with Gradual Wearing
- Alternator Elektrical Performance Test Bench
- Vibration Test Bench
- Alternator Thermal Test Bench
- Alternator Thermal Shock Test Bench

Manufacturing:

• Machining, Cold forming, Warm forming, Hot forming, Heat treatment, Automated assembly, Laser welding

- Clutch and flywheel for manual transmission systems.
- Torque Limitor and vibration isolator for hybrit vehicles.
- Alternotors













Vestel Elektronik Sanayi ve Ticaret A.Ş.

Commodity Group

Automotive Electronics, Electric Vehicles (EV), Consumer Electronics, White Goods, Led Lighting, Home Appliances, Smart Home, Smart Phones

Headquarters & Branches Addresses
OSB I. Kısım Cumhuriyet Cad. No:19
Manisa OSB / Manisa / Turkey

R&D Centers

Manisa / Turkey, Istanbul / Turkey Bristol / UK, Shangai / China

Phone: +90 (236) 233 01 31 Fax: +90 (236) 233 38 68

Production Site / Capacity

- Manufacturing on an area of 1.1 million m²
- A total manufacturing capacity of 24 million units/year (15 million units for consumer electronics and digital products, 9.4 million units for white goods.)

Website

www.vestel.com.tr

Contact Person
Hakan KUTLU / Deputy General Manager

Personal Mail

hakan.kutlu@vestel.com.tr

Interests

- Electric Vehicles
- Automotive Electronics
- AC/DC EV Chargers
- Multimedia Systems
- Infotainment/Entertainment Systems
- Screen/Display Technologies
- HW/SW Design
- Motor Drivers
- LED Lighting / LED Drivers
- Consumer Electronics
- White Goods
- TV Designs
- Smart Home Applications
- Smart Lighting Technologies
- · Cloud Technologies
- Inverter Designs
- Sensors
- Internet Of Things
- Embedded Applications
- Battery Management Systems / Storage Systems

Capabilities

Concept Development and Styling

- Benchmarking, 3D Modelling
- Interior/Exterior Electronics Parts

Research and Development

- · Project Management
- Customized Solutions Products
- SW/HW Designs
- ID/MD Applications
- Embedded Software Applications
- Product Development
- Simulation

Model and Prototype

- In-Hause Tooling, In-Hause Prototyping
- Manufacturing
- Test



VESTEL

- Automotive Electronics
- Electric Vehicles Technologies
- AC/DC EV Charger Designs
- Multimedia Applications
- Vehicle SW/HW Development
- Display Technologies
- Consumer Electronics
- Smart Home Applications
- Lighting Systems
- Sensor Technologies
- Internet Of Things
- Energy
- Battery Technologies/ Battery Management/Storage Systems
- White Goods Applications









Yamas A.Ş.

Location

BURSA / TURKEY

Headquarters & Branches Addresses NOSAB 119. Sok. No: 8 16145 Nilufer / Bursa / TURKEY

Phone: +90 (224) 410 00 54 Fax: +90 (224) 410 00 74 Production Site / Capacity 10.000.000 part/year

Website

www.yamas.com.tr

Contact Person Emre EŞİYOK / R&D Manager

Personal Mail emre.esiyok@yamas.com.tr

Interests

- Anti-vibration Products
- Suspension System
- Hydrobushes
- Subframe Bushes
- Control Arm Bushes
- Axle Bushes
- Stabilizer Bushes
- Hub Carrier Bushes
- Engine Mounts
- Strut Mounts
- Air Spring Mounts
- Vulcanization
- Sheet Metal Forming
- Surface Treatment
- · Packing&Assembly

Cluster Opportunities

- Anti-vibration Applications
- Suspension System Applications
- Hydraulic Bushing Applications
- Subframe Applications
- Control Arm Applications
- Axle Applications
- Stabilizer Applications
- Hub Carrier Applications
- Engine Mounts Applications
- Strut Mounts Applications
- Air Spring Mounts Applications

Capabilities

Engineering

- Computer Aided Design (CAD)
- Computer Aided Engineering (CAE)
- Co-design
- Reverse Engineering
- Rubber Formula Design and Development
- Process Design and Development
- Hydrobushing Development
- Solid-Liquid Interactive Components Development

Tooling and Prototype

- Tooling Desing (Vulcanization, Plastic and Aluminum Injection)
- Tooling Manufacturing (Vulcanization, Plastic and Aluminum Injection)
- Prototype Manufacturing

Testing and Validation

- 3-Axis Durability Test
- 1-Axis Durability and Dynamic Characterization Test
- Cardanic and Torsional Durability Test
- Servo Controlled Static Test Bench
- Static-Dynamic Characterization and Performance Test
- Hydrobushing Dynamic and Damping Characterization





RUBBER METAL SPARE PARS RUBBER METAL SPARE



Yeşilova Holding A.Ş.

Commodity Group

Automotive and Railway , Aluminium Extrusion Parts Aluminium High Pressure Casting Parts

Location

Bursa / Turkey

Headquarters & Branches Addresses
Hasanağa OSB Mh. 12. Cd. No: 4
Niliifer / BURSA

Phone: 90 224 484 23 30 Fax: 90 224 484 23 49

Production Site / Capacity

Locations: Turkey, Germany, Russia Over 250.000m² of land

Over 1.200 Employees
Export Over 17 Countries

24.000 tons / year Extrusion capacity Between 200 tons - 1000 tons High

Presuure Aluminium Injection

Machinery

Website

www.yesilova.com.tr www.yesilova.com.tr/en

Contact Person

Gökhan TEKİN / R&D Manager

Personal Mail gokhan.tekin@yesilova.com.tr

Interests

- Replacing products to Aluminium for weight reduction.
- Lightweight solutions with excellent properties of aluminum material.

Aluminium Extrusion Parts;

- Aluminium Frames and Doors
- Sunroof
- Roof Hatch
- Crash Management Parts, Bumper Beam and Crash Box
- Front Rear Underrun Protection
- Visual Parts; Roof Rack / Roof Rails
- Solar System Profiles
- EV Battery Carriers
- Cross Car Beam
- Radiator Guard
- Side Skirt

Aluminium Casting Parts;

- Engine Mount Bracket
- Anti vibration partsRoof Rack support
- Roof Rack support
 Seat support brackets
- Cable brackets
- Transmission Mounts
- Transmission Mounts
 Gearbox Bracket
- Nozzle plate Brackets
- Heat Transfer Bracket
- Cross Car Beam

Aluminium Chassis Components;

- Aluminium Subframe
- Cross Member

Rail Systems Assembly Products;

- Aluminium Interior Parts
- Ceiling
- Roof Arch

- Luggage Rack

Electric Vehicles;

- Aluminium Battery Carrier, Battery Case
- Chassis

Capabilities

Product Development & Validation

- Full Service Supplier
- Co-Design
- Tests

Engineering Design

- Co-Design (CATIA, SIEMENS UG NX)
- CAE, FEA Calculation (Hyperworks, Ansys, Click2Cast, Magma)
- Enovia 3D Experience Platform

Validation and Verification

- Product validation on test benchs
- Hardness Test, Micro-Structure Analysis
- Tensile & Compression Testing
- Climatic Cabin Tests, Xenon Test
- 3D Measurement
- Life Span Tests
- Static Load Test

Prototype Production

- Inhouse prototype manufacturing
- Aluminium extrusion prototype parts
- Aluminium injection prototype parts

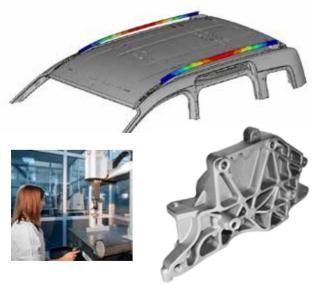
Mold Development

- Extrusion / Plastic / Aluminum Injection Mold Design, Extrusion Analysis of the Mold
- Extrusion Mold Manufacturing

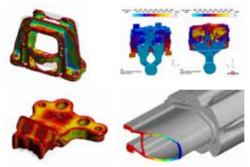
Aparat and Fixtures Development

- Aparat and Fixtures Design
- Aparat and Fixtures Manufacturing

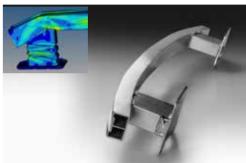
- Electric Vehicles
- Product development and production for Automotive Industry (Weight and Cost reduction)
- Product development and production for Railway Industry
- Lightweight Materials (Aluminium and Magnesium)
- Aluminium Casting and Extrusion
- Magnesium Casting and Extrusion

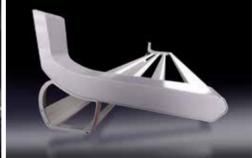












Yıldız Kalıp San. ve Tic. A.Ş.

Commodity Group

Sheet Metal Processing and Die
Manufacturing

Location

İSTANBUL / TÜRKİYE

Headquarters & Branches Addresses Hadımköy Yolu Ömerli Mahallesi İhsangazi Sokak No:28 34555 Arnavutköy - İstanbul / TÜRKİYE

Phone: +90 212 771 15 15 Fax: +90 212 771 28 98

Production Site / Capacity
30.000 (square meter) / 60.000 (Tons/Year)

Website

www.yildizkalip.com

Contact Person Halit Çebi / R&D Manager

Personal Mail halit.cebi@yildizkalip.com

Interests

- Sheet Metal Forming & Processing Technologies
- Sheet Metal Tool & Die Technologies
- Energy-Saving Technologies
- Tool & Part Designing
- CAD, CAM & CAE Technologies
- Welding Technologies
- Assembly Technologies
- Aluminum Materials
- 3rd Generation AHSS Materials
- Inovative Surface Treatment and Coating Technologies
- Image Processing & Machine Vision
- Industry 4.0 Applications
- Additive Manufacturing

Cluster Opportunities

- Machinery Manufacturing
- Metal Manufacturing
- Process & Die Design and Manufacturing
- Automotive Chassis & Body Parts Design
- White Goods Industry
- Service, High Technology

Capabilities

Product Development

- Process Design
- Co-design
- Formability Simulation
- Motion & Structural Analyses

Engineering Design

- Hydraulic and Eccentric Press Design & Manufacturing
- Robot Automation and Serial Production Lines
- Robotic Welding and Assembly Lines
- Die Tooling, Prototype

Model and Prototype

- Inhouse Tooling, Inhouse Prototype
- Manufacturing

Validation and Verification

- 3D Measurements (CMM, Optical)
- Tensile Stress and Hardness Measurement
- Validation Testing, Equipment
- Calibration
- Destructive & Non Destructive Testing























Yiğit Akü Malzemeleri A.Ş.

Commodity Group
Starter & Industrial Batteries

Location

ANKARA

Headquarters & Branches Addresses
Organize Sanayi Bölgesi Oğuz Caddesi.
No: 2 Sincan / ANKARA

Phone: +90 312 2670280 Fax: +90 312 2670861

Production Site / Capacity 7.000.000 Battery / Year

Website

www.yiğitaku.com

Contact Person Volkan Karahan / R&D Manager

Personal Mail volkank@yigitaku.com

Interests

- Lead Acid Battery Technology
- Gel battery Technology
- Lithium Ion Battery Technology
- Silver Oxide Zinc Battery Technology
- Traction and Stationary Battery Technology
- Green Energy Storage Systems
- Battery Management System
- Electrical Vehicles
- Defence Vehicles Energy Supply systems and Applications
- Defence Missile Energy Supply Systems
- · Plastic Technologies
- Re-Cycle Technologies for All Type of Battery Parts

Capabilities

- Product Development and Simulation
- Process Implementation and Method Development
- Research and Project Management
- Test and Verification
- Functional Tests Laboratory
- Simulation Tests Laboratory
- Chemical Tests Laboratory
- Prototype Inspection and Analysis Workshop
- Strategic Planning and Business Development Unit
- Engineering Design
- In-House Machine and Tooling Design and Manufacturing
- Turn-Key Lead Acid Battery Production Factory Project



YPS Otomotiv A.Ş.

Commodity Group

Automotive Sheet Metal Forming and Die, Welding and Assembly Supplier.

Headquarters

Organize Sanayi Bölgesi Sari Cad. No:13

Branches Addresses

Organize Sanayi Bölgesi Ali Osman

Sönmez Bulvarı No: 7 16140 Nilüfer / Bursa

Organize Sanayi Bölgesi Ali Osman Sönmez Bulyarı No: 16

Sönmez Bulvarı No: 16 16140 Nilüfer/Bursa

Phone: +90 224 242-7225 Fax: +90 224 243 14 77

Production Site / Capacity total 17000 m² area

Website

www.yps.com.tr

Contact Person

Ozan Buyruk / Engineering Manager

Personal Mail ozan.buyruk@yps.com.tr

Interests

- Sheet Metal Forming
- Welding (Spot, Projection, Arc, MIG)
- Wire Bending, Cold Forming
- Pedal Group Parts
- Stainless Parts
- Hinges
- Vehicle Lower-Upper Body Parts
- Suspension and mounting parts
- · Body parts

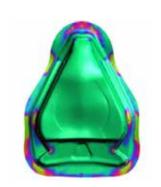
Cluster Opportunities

- Automotive components
- Co-Design
- Process Design
- Design & Validation
- Die Manufacturers

Capabilities

- Production and Manufacturing
- Cold Forming (High Strength Steels Included)
- Tooling & Die Manufacturing
- Automated Welding (Spot, Projection, Arc, MIG)
- Assembling (Welded or Mechanical Assemblies)
- Engineering Design
- Project Management
- Prosess Development
- Die/Mold Design
- Simulation, Static Analysis (Autoform)
- CAD/CAM
- 2D-3D Modelling
- Co-design
- Test/Measuring/Laburatory Capabilities
- Tensile Strength
- CMM 3D Measurement



















ZF Lemförder Aks Mod. San. Tic. A.Ş.

Commodity Group
Car Chassis Technology

Location

İzmir / TURKEY

Headquarters & Branches Addresses
Atatürk Organize Sanayi Bölgesi 10003
Sok. No: 13. İzmir / TURKEY

Phone: +90 232 398 13 04 Fax: +90 232 398 13 91

Production Site / Capacity İzmir - Ciğli

Website

www.zf.com

Contact Person
Ender Erdogan / R&D Manager

Personal Mail ender.erdogan@zf.com

Interests

- · Aluminium Alloys
- Hot and Cold Forming
- Surface Protection
- Surface Techniques
- Composite Materials
- Innovative Products
- High Strength Components
- Cost Savings

Cluster Opportunities

- Chasis Components for passenger and commercial vehicles
- Chasis Product Development

Capabilities

Concept Development

- Benchmarking
- 3D modelling in CATIA, UNIGRAPHICS NX 9.0
- 2D modelling in CATIA
- Data Management in AXALANT and ENOVIA

Engineering Design

- Global engineering for chasis components
- CAE Calculations in Abaqus, Altair Hyperworks, MSC Marc/Nastran/ Patran and LMS Virtual Lab./Tecware
- Special Engineering Tools

Validation and Verification

- Torque Control
- Fatigue Test
- · Sealability Test
- Moisture Determination
- Salt Spray Corrosion Test



