



### Asut Fiberglass Ind. Inc.

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**Burhanettin ASUT (1930)** 

**FOUNDER** 

#### **EVER SINCE**

As we did in the early 1966's, pioneering the FRP (fiberglass) industry. ASUT has again risen to challange manufacturing a Filament Winding system, using the same commintment to excellence that has made ASUT an industry leader for fourtynine years.

- -1966 FRP Boat
- 1968 FRP Truck Driver Cabin
- 1969 FRP Continuous Roof Cover
- 1973 FRP Filament Winding Pipe & Tanks
- 1980 FRP Filament Winding Elbow
- 1991 FRP Cooling Tower & Blade
- 1993 FRP Pultrusion
- 1994 PP Tower Packing Ring
- -1995 FRP (ID 3 m) Absorber
- -2000 FRP (ID 10 m) Absorber
- -2001 FRP (ID 8 m) Duct
- 2008 FRP Continuous Cross Fw Pipe
- 2014 40.000 sq. meter total area

Since the 1966's, ASUT Fiberglass technology has evolved to enable fiberglass to be used as either the Pipe-Tank-Absorber-Chimney materials of choice or a feasible alternative for certain











We've been doing it skillfully for 55 years.

### **APPLICATION & OUR SCOPE**

### **APPLICATION**

- Chemical Plants
- Refineries
- Petrochemical Plants
- Oilfields
- Fire Fighting Systems
- Off Shore
- Marine
- FGD Plants
- Power Station
- Mining
- Desalination
- Pharmaceutical
- Pulp and Paper
- Agriculture
- Sea Water Intake / Outfall lines
- Pickling Lines
- Potable / Sewer / Waste / Lines
- Industrial Water Lines



















### **OUR SCOPE**

- Production & Cost Feasibility
- Research & Development
- Offering
- Mobilization, Production, Delivery & Installation
- Design & Third partys check
- Construction & Detail Drawings
- Production (Mersin TR or Field Workshop)
- Spooling
- Material Testing
- Material Certification
- Training (customer & Enduser staff)
- Transportation Packing
- Transportation
- Lifting & Equipments
- Scaffolding & equipments
- Assembly-Field Installation





Sea port: 15 km, Mersin International Sea port

Air port: 40 km, Adana Air port Location: Mersin Industrial Zone,

(8 km Tarsus, 15 km Mersin, 40 km Adana Citys



# PIPE























Standard Length:
25 mm to 65 mm - 4 m
80 mm 4000 mm - 6 m (12 m available)
Jointing System:
Butt (hand laminate) type
Adhesive Bonding Coupling type
Double "O" ring (Bell & Spigot or Coupling) type
Double "O" ring (Bell & Spigot or Coupling) Key-Lock type
Threaded End



# FITTINGS









































Dimensions: Please check our "Fitting dimension" catalogue

Jointing System:
Butt (hand laminate) type
Adhesive Bonding Coupling type
Double "O" ring (Bell & Spigot or Coupling) type
Double "O" ring (Bell & Spigot or Coupling) Key-Lock type
Threaded Ends



# SPOOLING

### **SPOOLING**

Instead of loose components you may consider designing your pipe system with prefabricated sections. These are Tailor-made in the factory and include elbows,tees,reducers, flanges and so on.

These spools offer the following practical advantages.

- Shorter in built lengths
- Practically all spool can be tested in advance conditions
- Fast and Faultless assembly
- Weather conditions hardly effect installation proceeding



























Spool Jointing Type:
Butt (hand laminate) type
Adhesive Bonding Coupling type
Double "O" ring (Bell & Spigot or Coupling) type
Double "O" ring (Bell & Spigot or Coupling) Key-Lock type
Fix or Loose Flanged type





# TANK





































## **DUCTING**

### **DUCTING**

Made of GRP are also a ASUT domain.

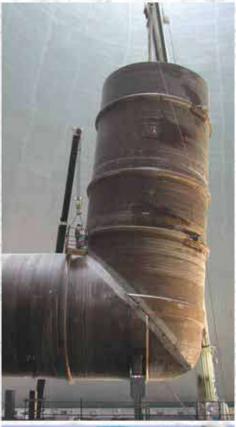
We prove our authority in this in the course of redevelopment measuresof flue gas ducts in Power. Chemical Plants and other Industrys all over Turkiye and worldwide.

The most GRP ducts in Turkiye are ASUT made.

Normally long lengths of large diametre conduit are

fabricated by joining individual section.

































# ABSORBER & COLUMN





























**Type of Application for Column-Scrubber and Absorber** - DeSox Plant (Flue Gas)

- Gas Treatment Plant
- Chemical Plants (Absorbtion Column)
- Venturi
- Electrofilter



We've been doing it skillfully for 55 years.





# CHIMNEY - STACK

# Type of Application for Chimney-Stack - DeSox Plant (Flue Gas) - Gas Treatment Plant - Chemical Plants





























# FIELD PRODUCTION & INSTALLATION

### FIELD PRODUCTION & INSTALLATION

Our scope also Field Production, We can use Horizontal and Vertical Winding Technology Dimension from 4 m to 25 m diametre.































Pipe line spooling
Recirculation & Spray Bank Installation
Pipe laying activities
Tank ,Duct, Scrubber, Stack & Chimney Installation



# SPRAY BANK (ARM) & RECIRCULATION PIPING

### Spray Bank and Recirculation piping lines are used in

- FGD Plants
- Chemical Plants
- Soda Ash Plants
- Cement Industry
- Refinery Industry









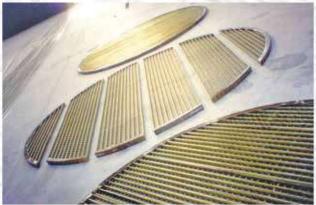








# **COLUMN INTERNAL & SPECIAL PRODUCTS**





















# FLUORO & THERMOPLASTIC LINER



### **SETTLER & COVER**

















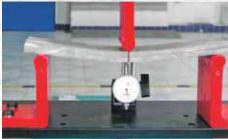


# TESTING and ENGINEERING

### Testing;

LT Hydrostatic Pressure
ST Hydrostatic (Burst) Pressure
Tensile (Rupture) Strength
Modulus of Elasticity
Axial Beam Bending
Hoop (Deflection-Stiffness) Bending
Barcol Hardness
Glass Content
Water Absorbtion













Pipe , Tank and all Equipments standards such as ;

AD 2000 Merkblatt	ASTM 4021	
API15 LR-HR	ASME SECTION X	BS 7159
ASTM 2310	ASME RTP-I	DIN 1055
ASTM 2996	AWWA C-950	DIN 16965
ASTM 3262	AWWA M45	DIN 16966
ASTM 3299	BS 4994	DIN 18820
ASTM 3517	BS 5480	ISO 14692
ASTM 3754	BS 6464	UNI 9032



### **Engineering**;

(AutoCAD - Catia - Inventor - Cosmo - Ansys - Ceasar2)
We provide Engineering consulting services in all aspects

of pipe line, tank, absorber, stack,

duct and all other any shaped equipments.





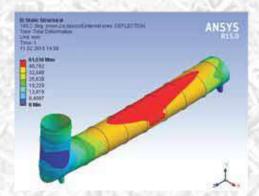












- Finite Element Method
- Finite Volume Method
- Fluid Flow Solution
- Computational Fluid Dynamics
- Structural Solution
- Vibration Prediction and Control
- Rigorous Static and Dynamic Stress Analysis
- Surge, Waterhammer analyses
- Stress Calculation
- Detail & Construction Drawings
- Isometric & Spooling Drawings





## REFERENCE









AE&E / AUSTRIA - Environmental Tech. AFSIN B-POWER PLANT / TURKIYE - 4x380 MW Coal Power Plant AKBOR / TURKIYE - GRP Pipe Producer AKKIM / TURKIYE - Chemical Plants AKSA ENERGY / TURKIYE - Energy Power Co. ALARKO-ALSIM / TURKIYE -Project-Construction Co. ALIAGA PETRO KIMYA / TURKIYE - Petrochemical Plant ALKIM / TURKIYE – Chemical Plants (GE) ALSTOM POWER / SAR - Environmental Tech. (GE) ALSTOM POWER / ITALY - Environmental Tech. (GE) ALSTOM POWER / NORWAY - Environmental Tech. (GE) ALSTOM POWER / INDIA - Environmental Tech. (GE) ALSTOM CARBON / GERMANY - Environmental Tech. (GE) ALSTOM POWER / CHINA - Environmantal Tech. (GE) ALSTOM POWER / TURKIYE - Environmantal Tech. (GE) ALSTOM POWER / ROMANIA – Environmental Tech. ALPAYDIN GÜBRE / TURKIYE - Fertilizer Plant ARBIOGAZ / TURKIYE - Environmental Tech. ARES TERSANECILIK / TURKIYE - Shipyard ASTEC ENGINEERING / TURKIYE - Project Co. ATAS / TURKIYE - Petrolium Refinery ATILLA DOGAN / TURKIYE - Project-Construction Co. AQUA-TREAT / JORDAN - Environmental Tech. AQUITEC / BELGIUM - Environmental Tech. AQUAMATCH / TURKIYE - Environmental Tech. AZERBAYCAN MINING / AZERBAYCAN - Mining Co. BASER / TURKIYE - Chemical Plant BABCOCK & WILCOW / USA - Environmental Tech. BAGFAS / TURKIYE - Fertilizer Potash Plants BECHTEL / USA - Proiect Construction Com. BOZETTO / ITALY - TURKIYE - Textile Chemicals BOTAS / TURKIYE - Petroleum Pipe Line Com. BTC Co. / AZERBAJIAN - Petroleum Pipe Line Company CADDEL / USA - Project Construction Com. CAM ELYAF A.S. / TURKIYE - Glass Fibre Production Ind. CARGIL / TURKIYE - Chemical Plant CENGIZ GROUP / TURKIYE - Power Station and Chemical Plants CINKUR / TURKIYE - Zinc Lead Plant CORUS / HOLLAND - Strip Products DELTA BRANDS INC. / USA – Steel, Pickling Plants Project Com. DEMIRER / TURKIYE - Energy power& Cable producer ECE BORU / TURKIYE - GRP Pipe Producer EKSOY / TURKIYE - Textile Chemical Com. ENKA / TURKIYE - Project Construction Com. ENKA TEKNIK / TURKIYE – Project Construction Com. ENERJİSA Enerji Üretim A.Ş / TURKIYE - Power Station ENTROPIE / FRANCE - Desalination Plant Project Com. ERDEMIR / TURKIYE - Iron Steel Plant ESEN PLASTİK / TURKIYE - GRP Pipe Producer ETIBAKIR SAMSUN / TURKIYE - Coper Plant ETİBAKIR MAZIDAĞI / TURKIYE – Phosphat, Fertilezer, Sulphiric Acid Plant ETIBANK / TURKIYE - Borax Boric Acid Plant ETI ALUMINIUM / TURKIYE- Aluminium Plant ETI SODA / TURKIYE - Natural Soda , Trona- Plant EVATHERM / SHITZERLAND- Evaporation & Crystallization Processing FERNAS / TURKIYE - Project Construction Com. FIBERPIPE / GERMANY - GRP Piping supplier FLUOR DANIEL / USA - Project Construction Com. FORTUM / FINLAND - Environmental Tech. GAMA / TURKIYE - Project Construction Com. GAMA POWER / TURKIYE - Power Stations Project Com. GAZİ METAL / TURKIYE – Iron and Steel Process Com. GEMONT / TURKIYE - Project Construction Com.

GEZER ENDUSTRI / TURKIYE - Project Construction Com. GLANZSTOFF / AUSTRIA - Vliscose Filament Yarns Com. GULERMAK / TURKIYE - Project Construction Com. HAMON RESEARCH / BELGIUM - Environmental Tech. HAMON RESEARCH / ITALY - Environmental Tech. HAMON THERMAL / GERMANY - Environmental Tech. HOLBROOK / DENMARK - Military Eqp. Supply Com. HOBAS / TURKIYE - GRP Pipe Producer Com. HIDRODIZAYN / TURKIYE - Environmental Tech. HITACHI / JAPAN - Project Construction Com. ISDEMIR / TURKIYE – Iron and Steel Process Com. ISKEN ENERGY / TURKIYE - Coal Energy Power Plant ISSI / USA - Steel & Pickling Plants Project Com. IZOCAM / TURKIYE - Glasswool Production Plant JORDAN ARAB CO. / JORDAN - Fertilizer Potash Plant JPMC / JORDAN - Phosphat Mines Company KARADENIZ BAKIR / TURKIYE - Copper Plant KAWASAKI / JAPAN - Project Construction Com. KORUMA TARIM / TURKIYE - Chlorine Alcali Plants KOCH-GLITSCH / ITALY - Environmental Tech. KROMSAN / TURKIYE - BCS Chromic Acid Plant KURTUL MAKINE MAK. / TURKIYE – Project Com. K+S KALI / GERMANY - Sodium Plant KVAERNER / FINLAND - Environmental Tech. MARUBENI / JAPAN - Project Construction Com. MNG-MAPA / TURKIYE - Project Construction Com. MITSUBISHI / JAPAN - Heavy Project Construction Com. NKK / JAPAN - Project Construction Com. NIPPON / JAPAN - Project Construction Com. NIROU CHLOR / IRAN - Chlorine & Chemicals Plant OUTOTEC / FINLAND - Environmental Tech. OXYVIT / TURKIYE - Vitamin-K Chemical PlanIt PARKTERMIK AŞ-CINER Group / TURKIYE - Coal Power Plant POLIN SU PARKLARI / TURKIYE - Pool Slides Producer POSCO / S.KOREA - Iron & Steel Plant BILLUR TUZ / TURKIYE - Salt Com. SNC LAVALIN / BELGIUM - Process Plant Construction Com. SODA SANAYII / TURKIYE - Sodium Carbonate Plants SODA LUKAVAC / BOSNA - Sodium Carbonate Plants SOLIOS / FRANCE - EnvironmentalTech. SPIG / ITALY - TURKIYE - Cooling Tower Project Company SPIG Babcock and Wilcox / ITALY - Cooling Tower Project Company SSL / BOSNA - Sodium Carbonate Plants STEULER / GERMANY - Environmental Tech. SUBOR / TURKIYE - GRP Pipe Producer SUNAR / TURKIYE - Corn Refining Industry SUPERLIT / TURKIYE - GRP Pipe Producer TAT METAL / TURKIYE - Iron Steel Plant TAT NİŞASTA / TURKIYE – Corn Amyl producer TEKFEN / TURKIYE - Project Construction Com. TEKSER / TURKIYE - Project Construction Com. TENOVA ADNACED TECH. / ITALY - Mining Process Tech. TEPE / TURKIYE - Project Construction Com. TOROS TARIM / TURKIYE - Fertilizer Potash Plants TOSYO TOYO / TURKIYE - Iron Steel Plant TURKISH PETROLEUM / TURKIYE - Petroleum Field Company TUPRAS / TURKIYE - Petroleum Refinery UMDE / TURKIYE - Construction Com. VICEM YACHTS / TURKIYE – Boat Motor Yacht Producer YATAĞAN TERMİK SANTRAL / TURKIYE – Power Plant YENİKÖY KEMERKÖY / TURKIYE – Power Plant YILDIZ HOLDING / TURKIYE - Iron Steel Plant

YUKSEL / TURKIYE - Project Construction Com.