



## **ISIMEK INDUSTRIAL TYPE;**

- Steam Boilers,
- Hot Water Boilers ,
- Hot Oil Boilers,
- Superheated Water Boilers,
- Sawdust Collecting Systems,
- Silo's for Woodchips and Sawdust ,
- Bitumen & Asphalt Storage Tanks

Isimek has been designing, projecting, and manufacturing industrial-type Biomass, liquid & natural gas boilers since 2002 in its own facilities.

In addition, Isimek is a leading company in the sector that installs and assembles Industrial Boiler Systems with the qualified technical team

BIOMASS SUPER-HEATED WATER  
BOILERSKURUOĞLU TIMBER PROCESSING  
Düzce Factory

- *6.000.000 kcal/h (6.970 kW) Capacity, 140 °C operating pressure, Superheated Water Boiler, System has moving grate unit for burning 50% moisture content sawdust and woodchips.*
- *An automatic biomass fuel feeding system and PLC remote control system are available.*
- *The operating pressure is 6 Bar.*
- *Sawdust and woodchips Polygonal Silo has a 300m<sup>3</sup> Capacity, System includes dust collecting installation.*
- *Isimek's R&D team designed and projected the system. Also manufactured, installed and commissioned by our qualified staff. 2021 Düzce Province-TURKIYE*



## BIOMASS SUPER-HEATED WATER BOILERS

### Salkim Forest Products

Beykoy Düzce Factory

- *6.000.000 kcal/h (6.970 kW) Capacity, 140 °C operating pressure, Superheated Water Boilers System has a moving grate unit for burning 50% moisture content sawdust and woodchips. An automatic biomass fuel feeding system and PLC remote control system are available.*
- *The operating pressure is 6 Bar.*
- *Sawdust and woodchips Polygonal Silo has a 300m<sup>3</sup> Capacity, System includes dust collecting and pipeline installation.*
- *ISIMEK's R&D team designed and projected the system. Also manufactured, installed and commissioned by our qualified staff. 2020- Düzce Province-TURKIYE*





## BIOMASS SUPER-HEATED WATER BOILERS

### MUZAFFER FURNITURE LTD

Inegöl Bursa Furniture Factory

- *3.000.000 kcal/h (3.450 kW) Capacity, 120 °C operating pressure, Superheated Water Boiler, System has moving grate unit for burning 50% moisture content sawdust and woodchips.*
- *An automatic biomass fuel feeding system and PLC remote control system are available.*
- *The operating pressure is 4 Bar.*
- *Sawdust and woodchips Polygonal Silo has a 300m<sup>3</sup> Capacity, System includes dust collecting installation.*
- *Isimek's R&D team designed and projected the system. Also manufactured, installed and commissioned by our qualified staff. 2022 Bursa Province-TURKIYE*







## BIOMASS SUPER-HEATED WATER BOILERS

### **EUROWOOD** Veneer and Timber Industry Inegöl Bursa Furniture Factory

- *6.000.000 kcal/h (6.970 kW) Capacity, 140 °C operating pressure, Superheated Water Boiler, System has moving grate unit for burning 50% moisture content sawdust and woodchips.*
- *An automatic biomass fuel feeding system and PLC remote control system are available.*
- *The operating pressure is 10 Bar.*
- *Wood chipper 500 REF for papel*
- *Isimek's R&D team has designed and projected the system. Also manufactured, installed and commissioned by our qualified staff. 2022 Düzce Province-TURKIYE*





## BIOMASS STEAM BOILER

### DIVAPAN INTEGRATED FACILITY LTD

#### Düzce Factory



- *12.000 kg/h Capacity, Steam Boiler, System has moving grate unit for burning 50% moisture content sawdust and woodchips.*
- *An automatic biomass fuel feeding system and PLC remote control system are available.*
- *The operating pressure is 14 Bar.*
- *Isimek's R&D team designed and projected the system. Also manufactured, installed and commissioned by our qualified staff. 2022*
- *DUZCE Province-TURKIYE*

BIOMASS SUPER-HEATED WATER  
BOILERS**Salkim Forest Products**Demirköy Kırklareli Factory

- *6.000.000 kcal/h (6.970 kW) Capacity, 140 °C operating pressure, Superheated Water Boiler, System has moving grate unit for burning 50% moisture content sawdust and woodchips. An automatic biomass fuel feeding system and PLC remote control system are available.*
- *The operating pressure is 6 Bar.*
- *Sawdust and woodchips Polygonal Silo has a 300m<sup>3</sup> Capacity, System includes dust collecting and pipeline installation.*
- *Isimek's R&D team designed and projected the system. Also manufactured, installed and commissioned by our qualified staff. 2021 Kırklareli Province-TURKIYE*





## BIOMASS STEAM BOILER

**AYAHİ CONSERVERİ SAFİR GROUP**

## Tomato Paste Factory



- 10.000 kg/h Capacity, Steam Boiler, System has moving grate unit for burning 50% Olive pomace and pellet.
- An automatic biomass fuel feeding system and PLC remote control system are available.
- The operating pressure is 12 Bar.
- Isimek's R&D team designed and projected the system. Also manufactured, installed and commissioned by our qualified staff. 2021

EL MANSOURA KESRA-TUNISIA



## BIOMASS STEAM BOILER



### ✓ **DOC-PE Ukraine :**

- Full automatic woodchips fired Steam Boiler with capacity of 10 tons/hr.
- 14 bar operating pressure. Boiler is manufactured in 2018 and transported to Ukraine.
- R& D, design and project is carried out by Isimek Technical Team.

### ✓ **Tepe Home Furniture:**

- Full automatic Steam boiler with 8 ton/hr capacity at 8 bar operating pressure and moving grate unit is manufactured in 2018.
- Installation and commissioning Works completed earlier of January 2019.
- R&D, design and project was carried out by Isimek Technical Team.



## BIOMASS STEAM BOILER



✓ **Teknik Masura A.Ş. -Mersin :**

*8.000 kg/h Capacity at 10 Bar operating pressure steam boiler .Fully automatic and hydraulic feeding Steam boiler is fired with pulper, sawdust, wood chips, olive pomace, 50% moisture content wood chips, wooden wastes and similar. Screw Conveyor (from silo to belt conveyor), Belt Conveyor (Transfer to boiler) Hydraulic agitator, Pool type storage ISIMEK qualified staff designs, projects, manufactures , installs and commissioning works are completed.2019*

✓ **Fansa Group Kağıt Ltd –İzmir :***8.000 kg/h Capacity at 10 Bar operating pressure steam boiler .Fully automatic and hydraulic feeding Steam boiler is fired with pulper, sawdust, wood chips, olive pomace, 50% moisture content wood chips, wooden wastes and similar. Screw Conveyor (from silo to belt conveyor), Belt Conveyor (Transfer to boiler) Hydraulic agitator, Pool type storage ISIMEK qualified staff designs, projects, manufactures , installs and commissioning works are completed.2020*







## **BIOMASS INDUSTRIAL HOT WATER BOILERS**

### **“ISIMEK Manufactures Poultry Manure Wastes Fired Hot Water Boilers”**

50% Moisture Content Sawdust, woodchips, Wooden wastes, Dry woodchips, Pellet, Prina, Nut shell and similar waste fuels are used.

❖ **Örs Poultry:** Hot Water Boiler with **6.000.000** kcal/hr capacity at 90 °C and 3 bar operating pressure, poultry manure wastes fueled moving grate is manufactured , installed and commissioning works are completed. R&D, Design and Project of boiler is carried out by Isimek technical team.





### **RDF , WASTE FUEL FIRED STEAM BOILER**

❖ **SUN-KA Paper:** Industrial steam boiler system with 6.000 kg/hr capacity at 12 Bar operating pressure having moving grate is able to fire sawdust, woodchips, nut shell, textile & paper spoilage waste fuels. Also, it is manufactured and commissioned in 2018. Isimek technical team carried out R&D, design and project of steam boiler



## VIEWS FROM TEPE HOME FURNITURE AFTER INSTALLATION







## BIOMASS FIRED HOT OIL BOILERS



➤ **Gentaş A.Ş. :** Hot Oil Boiler with **2.500.000 kcal/hr** capacity at 280 °C operating temperature and 8 bar operating pressure is in the form of vertical and easy to feed by manual, manufactured and installed and commissioned in 2018. R& D, Design and Project works are carried out by Isimek technical team.

➤ **ITM Heat Technique :** Hot Oil Boiler with **3.500.000 kcal/hr** capacity having 10 bar operating pressure at 280 °C operating temperature is manufactured, installed & commissioned in 2018. Boiler is in the form of vertical type. R&D, design and project works was carried out by Isimek technical team.





## TANWOOD FOREST PRODUCTS

- ❖ Hot Oil Boiler : Horizontal Type, 1.000.000 kcal/hr at 10 Bar
- ❖ Steam Boiler with Heat Exchanger: Natural gas fired, 600 kg/hr at 8 Bar operating pressure.
- ❖ Woodchips silo : 150 m<sup>3</sup>/hr capacity and CE certified.
- ❖ Dust Collecting Line.



## SAWDUST, WOODCHIPS SILO & DUST COLLECTING SYSTEM

→ Polygon Modular Sawdust Storage Silo

Prismatic Woodchips Silo →

Dust Collecting Systems



## MODULAR BAG FILTER & DUST COLLECTING SYSTEM

### ➤YATAŞ BEDDING: Modular Reverse Bag Filter Manufacturing and Installation

Vacuum is created for not allowing sawdust and woodchips passing through the fan in modular bag systems. Therefore, energy consumption and maintenance cost is reduced. Thanks to PLC Control system, instantaneous pollution measurements and cleaning processes are carried out spontaneously. Also, Hot air which is absorbed from ambient of factory can be given inside of factory instead of releasing to the outside. Therefore, you can save from heating expenses of your facility. Beside this, absorbed air causes negative pressure and this is an unhealthy situation for your workers. Filtered air is given back to the ambient of facility and ambient pressure becomes positive, hereby workers negative conditions are eliminated.





➤ **YATAŞ BEDDING: Shredder for Wooden Wastes ar**



➤ **Sawdust Transfer Fan**



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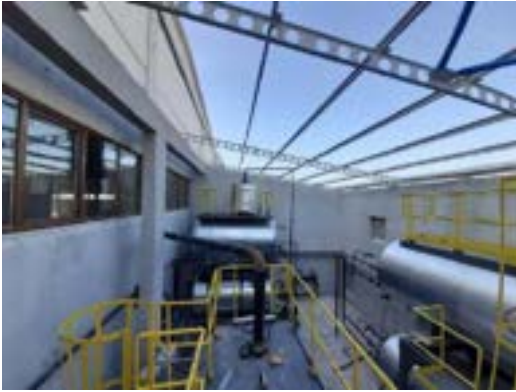
## **ISIMEK MANUFACTURES LIQUID & GAS FIRED HOT WATER, SUPERHEATED WATER AND STEAM BOILERS**



### **❖ TEDAŞ HEAT CENTER ANKARA; (TURKISH ELECTRICITY DISTRIBUTION CORPORATION)**

Liquid and natural gas fired **Superheated water boilers** having 10 Bar operating pressure, 2 x **3.000.000 kcal/hr** & 2 x **5.000.000 kcal/hr** capacities which are totally 4 pieces manufactured and commissioning is completed in 2018 according to relevant design and project certification.

## ISIMEK LIQUID & GAS FIRED STEAM BOILERS



### ❖ *Akşehir Feedmill*

- Steam boiler has 6.000 kg / h capacity, at 6 Bar operating pressure, the natural gas-fired system.
- It was produced and commissioned in 2022. R&D, Design, Project and Manufacturing, installation and commissioning were carried out by Isimek technical team. 2022 AKŞEHİR

### ❖ *Arsu Ofis Furniture(Uşak Leather Mixed Organisation Industrial Zone Regional Directorate)*

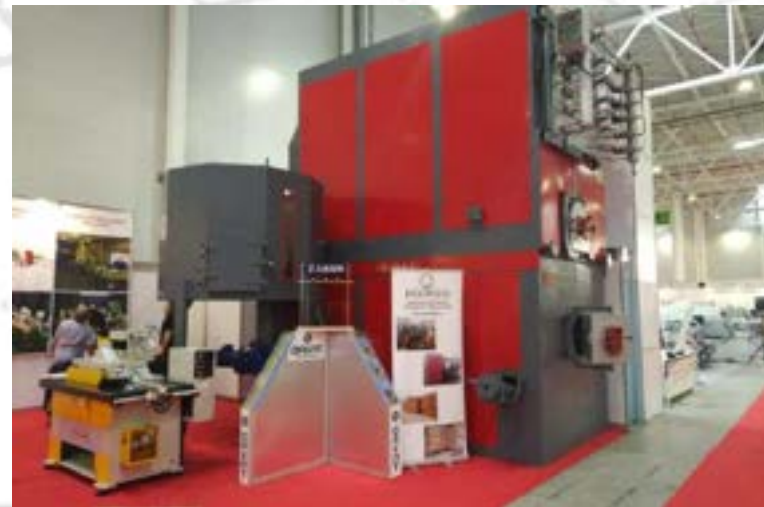
- *Steam boiler has 3.000 kg / h capacity, at 6 Bar operating pressure, the natural gas-fired system, including instruments, hot water and cold water lines.*
- *It was produced and commissioned in 2020. R&D, Design, Project and Manufacturing, installation and commissioning were carried out by Isimek technical team. 2020 UŞAK-TURKIYE*



## EXTERNAL AND INLAND FAIR VIEWS



- Germany-Ligna
- Romania-Bifesim
- Russia-Lesdrevmash
- Russia-Heat &Power
- Turkey -Tüyap
- Ukraine-Lisderevmash



## NATURAL GAS FIRED WATER TUBE STEAM BOILERS

- ❖ **METU Heat Center** : Dual natural gas fired  
65 ton/hr 47 MW 18 Bar operating pressure 300° C.
- ❖ **Directorate of Afşin-Elbistan** (B) Thermal Power Station,  
manufacturing and installing a new D Type Water Tube Boiler and  
delivering it to usage after completing commissioning works.  
D Type water tube steam boiler has a Capacity of 68/hour at 20 Bar  
operating pressure. *2020 Afşin Elbistan*
- ❖ **TURKISH GRAIN BOARD Afyon Alkaloid's** :  
D Type Water Tube Natural gas fired with 20 ton/hr and  
16 Bar operating pressure Steam Boiler.







## STORAGE TANKS

- Bitumen and Asphalt Storage Tanks
- Oil Storage Tanks
- Edible Oil Storage Tanks

• Highway General Directorate :

- Region 4
- Region 5
- Region 12

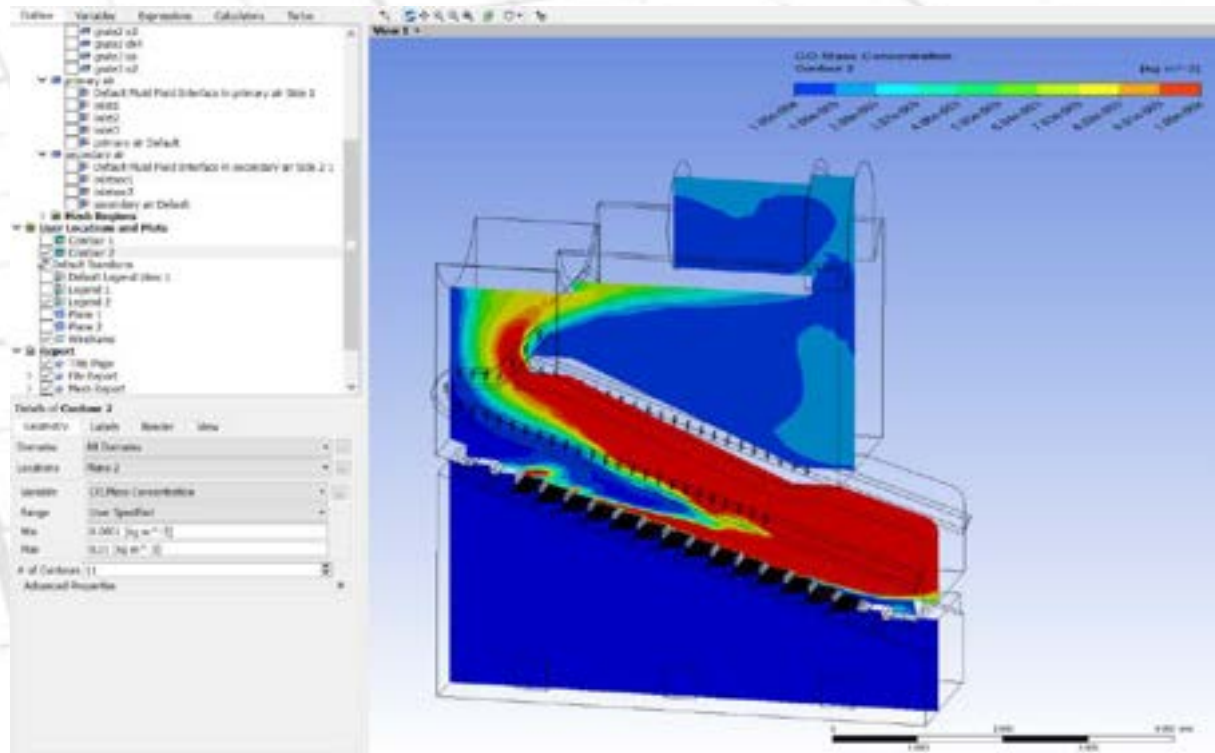




## COMBUSTION CHAMBER VIEWS

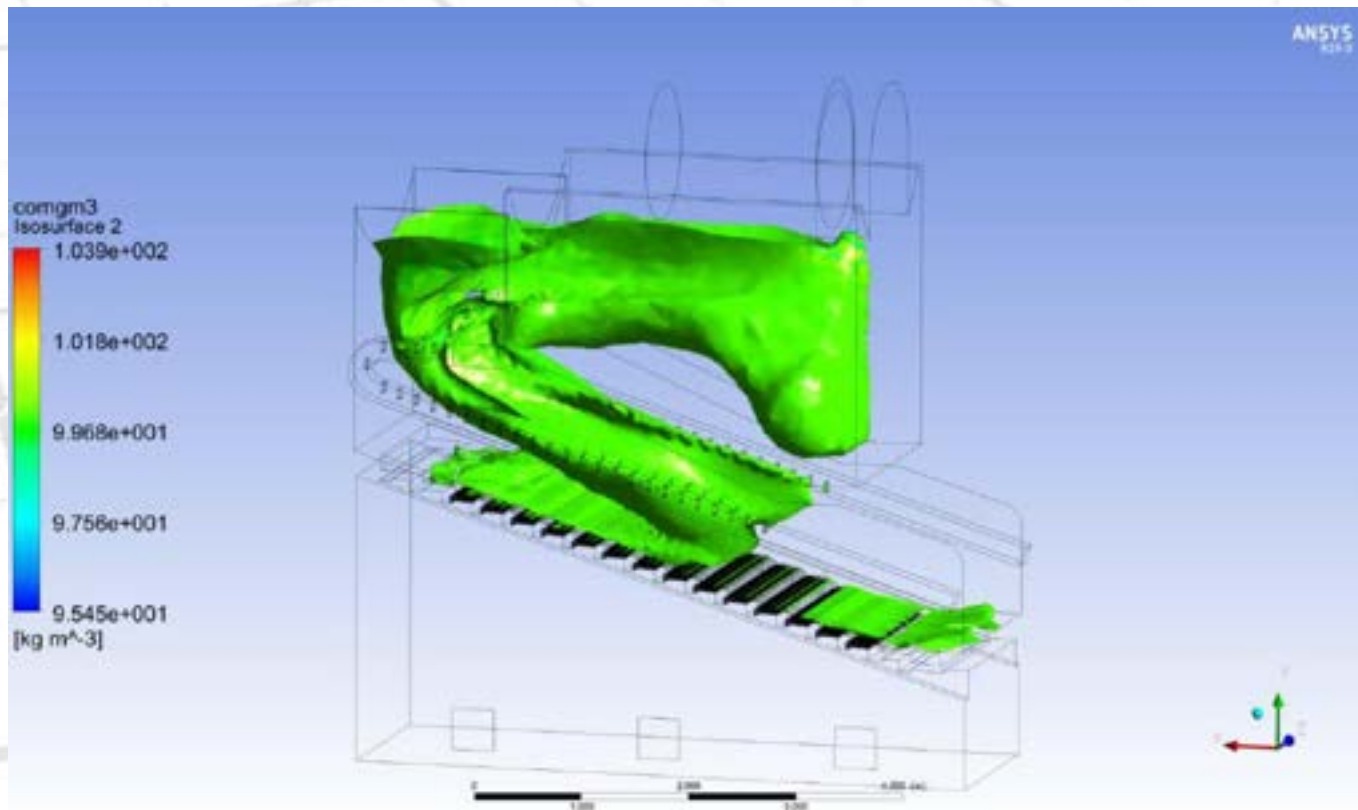


## ANALYSIS RESULT VIEWS



*Mass Investigation of CO Value*

## ANALYSIS RESULT VIEWS



*Mass Investigation of CO Value*





***Biomass Boiler  
Your Energy Source***

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