# EKIN ENDÜSTRIYEL

## HEAT STATIONS PRODUCT CATALOGUE

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## Sustainable Innovation, Quality Standardization and Dynamism

Ekin Endustriyel, which has entered Turkish heating sector by exporting of plated heat exchangers, is known with customer focused vision and dynamism. Ekin has expanded into new and upcoming investments. One of the main steps was gaining the identity of being a producer. Ekin has started the production of plate heat exchangers with the brand of "MIT". We have grown in the philosophy of quality, through initially adapting to ISO Quality Management.

MIT plate heat exchangers have become a solution for engineering problems in the world market and have grown through an expansion of franchises.

## **Engineering Approaches, Integrated Solutions**

Ekin has expanded into the production of components, sales, and after-sales service by employing expert engineers. The factors that guided Ekin to success are their exceptional customer service to the needs and wants of consumers, modern facilities, and becoming partners to projects that involve high-end technology.

Ekin is an expert company which has a wide product range which includes plate heat exchangers, accumulation tanks, water heater tanks, installation, and its service group and submit competitive advantages to mechanical installation sector in Turkey and all around the world.



## APPLICATION FIELDS



## **HEAT TRANSFER PRODUCTS**

 Gasketed Plate Heat Exchangers • Brazed Heat Exchangers • Shell&Tube Heat Exchangers • Air Fan Oil Cooler • Economizers • Coils and Radiators



## **PRESSURE VESSELS**

- Water Heater Tanks Water Storage Tanks •
- Tanks Expansion Tanks Stainless Steel Process
- Tanks Balance Tanks / Dirt Separators / Air Separators
- Pressured Air Tanks
   Neutralization Tanks
   Air Tubes
- Steel IBC Tanks with ADR

#### **COMPLETE SYSTEMS UNITS**

- Heat Stations
   Steam Package Systems
- Special Designed Systems Dosing Systems
- Substations Thermoregulators



## FOOD GRADE SYSTEMS

 Pasteurizers with plate heat exchangers • Hygienic Pasteurizers with Shell & Tube Heat Exchangers

- Cheese and whey Systems UHT Sterilization Systems
   CIP Systems Livriania Starsan and Pracess Table
- CIP Systems Hygienic Storage and Process Tanks
  Homogenizers Standartization Systems Evaporators
- Homogenizers
   Standartization Systems
   Evaporator
   Turn-key Projects



## **FLUID TRANSFER PRODUCTS**

Lobe Pumps • Hygienic Centrifuge Pumps • Turbo / Roots / Centrifuge Blowers • Drum Pumps • Acid Pumps
Dosing Pumps • Monopumps • Air operated Double Diaphragm Pumps (AODD)



## VALVES

- Thermoplastic Valves
- Plastomatic Valves



## ENERGY SYSTEMS

Solar Collectors

• Water Heater Tanks for Solar

## **Contents**

1

District Heating Substationsa



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#### MIT COMPLETE SYSTEM UNITS

MIT complete system units are used in houses, factories, geothermal plants, pool systems, industrial and marine areas, steam water heating, steam systems, chiller lines, radiator heating and similar applications. With these applications, we provide you with the package systems in the requested features.

MIT complete system units are designed according to your request and are offered in 3D. Thus, you can provide a pre-information to your customer or manager, you can get approval. At the same time, you will be informed about how much space you will have in your facility.informed about how much space you will have in your facility.



#### **Usage Areas**

#### Radiator Heating Systems with Steam and Hot Water

While steam is an enormous source of energy for heating, it is a very dangerous source of heat in the system leaks. Installed steam must be manufactured with the right materials and should be designed and prepared carefully by experts.

By utilizing the existing steam system, the heating needs of the plant are opened and closed automatically at the desired temperature and low energy is used to keep the temperature constant to the desired degree. Full and semi-automatic package systems are designed to serve for many years by creating first-class products.

In addition, in facilities with hot water supply instead of steam, package systems can be installed to heat the space in the same place or elsewhere using this energy. Factories, power plants, geothermal resources, dwellings can be mentioned as examples.

The existing hot water supply system utilizing the hot water supply system to keep the heating temperature constant, at the desired temperature and maximum performance systems are provided.



#### **Steam and Hot Water Treatment Systems**

In facilities with steam and hot water sources, bundling systems can be installed to heat the space using these energies.

Installations containing steam should be carefully manufactured with the right materials and should be designed by experts. By using the steam flow in the installation, it is a system that allows the hot water need in the plant to be kept constant at the desired temperature automatically by opening and closing itself and by using low energy, keeping the temperature constant to the desired degree. Full and semiautomatic packet units are designed to serve for many years by creating first-class products.

In the same way, the use of hot water supply, the need for hot water is obtained by using this type of package systems.

#### Water and Oil Cooling Systems with Chiller

Since chiller systems work at lower gas pressures, they are more efficient than other refrigeration units. In cooling systems with chiller, heat exchanger is used between the chiller and the device to protect the circuit and devices.

The packet unit connected to the chiller systems ensures maximum cooling performance. Oil, water and so on. It is formed with all the equipments necessary to keep the temperature constant in order to keep the temperature constant by ensuring minimum energy consumption by turning off and turning on and off by turning on and off with automation.

#### Induction Cooling Systems

Induction heating is a non-contact heating process. By this method, metals having electrical conductivity are heated using carbon-based materials using high-frequency electricity. Induction heating cannot be applied to plastic materials. Since the heating process is non-contact, any distortion, stain, distortion of the heated materials does not occur. As the heat is produced in the material, the energy efficiency is very high. It is used in automotive and aerospace industries, material processing applications and various engineering fields.

Pure water is used as a coolant in induction devices. Depending on the electrical current supplied, this water is cooler. Plate heat exchangers are frequently used for cooling the water.

Automated package systems are frequently used to keep the temperature of the water heated from induction furnaces stable.

#### **Other Complete System Units**

Almost everything in the field of industrial heating and cooling system can be designed and produced.

There are models designed for various customer demands, including user defined heating package systems for residences; waste heat recovery package units for your textile factories; automatic tuned package systems for your pools.

With the help of touch screen panels added on your request, you can see the process on the screen and intervene. You can also get reports, make calculations and make a cost report.

MIT Packet Units, which always provide practical solutions for the user, are offered with 100% customer satisfaction and cost-effective prices.





Complete system unit for maintaining the temperature of the rubber dough, made for one of the pioneers of the tire industry.



Complete system unit used for hot water and district heating, made for a cement factory.



Complete system unit for use in space heating with high steam temperature.



Automatic water heating packet unit produced for a global pharmaceutical company.





Complete system unit that triples production speed with the award of the year project.



Petro chemical unit for steam heating.



Textile recycling and waste water heat recovery system.



A complete system for mold cooling and testing.







Fan coil heating system with steam, designed for textile company.



Water heating system with steam temperature.



It is a hygienic complete system for foodstuff and heating liquid material.produced for a company serving in food sector.





Vacuum furnace cooling complete system prepared for a leading automotive spare parts manufacturer.



Hygienic complete system unit for food solutions and used in food heating.



Temperature control unit for a plastic factory in Russia.



Steam hot water treatment unit, designed for chemical factory.





Project used for high-efficiency apartment heating with a geothermal source.



Bearing oil cooling system, made for cement factories.



Compact heating system for olympic pools.



Bearing oil cooling system, made for cement factories.







Automatic system for the heating of water by steam, produced for one of the leading food factories of Turkey.





Product cooling unit for food process with chiller.





A complete system unit designed for our pharmaceutical manufacturer customer to maintain the vacuum pump temperature.



Induction furnace cooling system.





Unit for heating the tank coil with steam heat.





Induction furnace cooling system with double heat exchanger.



Textile washing water preparation system.









Circuit breaker between units with chiller.



## SOME OF RUNNING SYSTEMS

















#### ADVANTAGES OF COMPLETE SYSTEM UNITS

The commissioning of the complete system units prepared by the professional teams should be carried out by a specialized technical personnel.

Because of incorrectly launched applications, heat exchangers and other equipment damage and high maintenance costs occur. Our MIT personnel, who are experts in their fields, are commissioned under the MIT brand. It is possible to save an average of 20-25% energy with waste heat recovery package systems.



Ekin, which constantly renews and improves itself, provides the most efficient solutions to its customers with its MIT packet units.

- MIT packet units provide water at constant temperature, even with sudden and extremely variable hot or cold water requirements.
- Precise temperature control can be performed regardless of hot water load. It is perfectly suited to load changes in accordance with heating process.
- High load requirements can be met.
- There is no need to spend time on system design.
- Requires a small space.
- Solution is reached with a single system.
- Adapts to any business.
- Provides high efficiency, low maintenance and installation costs.







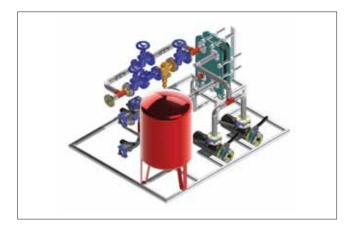




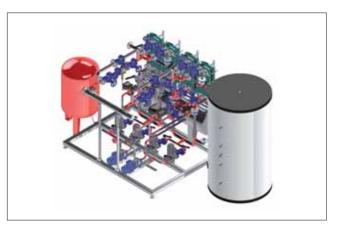


#### COMPLETE SYSTEM UNITS

Ekin, MIT complete system units are designed according to the demands and expectations of our customers. Equipments are prepared according to requests and data, drawn by technical artists and presented to our customers.



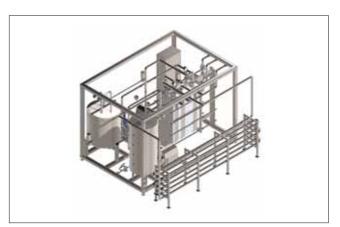
Steam Radiator Heating System



Steam Water and Radiator Heating System



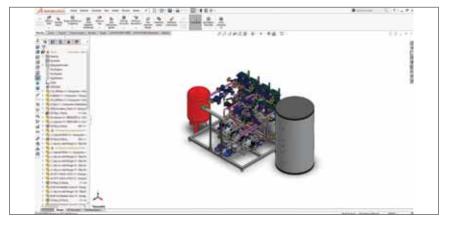
Water Preparation System with Boiler



Egg Pasteurizer



Cooling System



Technical Drawing Program





## EKIN ACADEMY



Ekin is aware that the progress in its sector is possible through continuous development and learning.

Ekin Academy, established with this awareness, aims to provide high-quality and sustainable development with its modern education methods, to provide successful employees and to provide value to the society through social responsibility projects.

Training and development programs that will make a direct contribution to the results of our employees' work processes and which will make a difference in their personal development are prepared by Ekin Academy.

For our business partners and customers, our training modules prepared by our expert staff provide training support for pre-sales and post-sales issues such as commissioning, operation, maintenance and repair of our products.

In cooperation with universities within the scope of corporate social responsibility projects, we are experiencing the happiness of adding value to the society by allowing the engineer candidate, who aims to take place in the fields where Ekin is active, to meet with the sector and to experience the theoretical knowledge acquired in the fields of application.

#### **In-Company Trainings**

Ekin Academy conducts technical, leadership, strategy development, sales and training and development programs for different tasks in the fields of heat transfer, pressure vessels, package systems, food systems and liquid transfer.





#### **Out-of-Company Trainings**

We are realizing conferences and training activities to our business partners, professional groups and institutions where we carry out social responsibility projects in various locations of Turkey.



#### SALES TEAM

At Ekin, we produce a proactive solution by our engineering staff who are specialized in their field. Our team, which works with the aim of unconditional customer satisfaction, works selflessly in order to gain customer loyalty by raising the bar of success in products, services and processes.

We are happy to share our accumulated knowledge with our valued customers. Ekin will continue to be the best solution partner for you in all applications with all kinds of heating and cooling applications.





#### **Customer Satisfaction**

Customer rights are protected in all circumstances.



#### **Privacy Policy**

Aware of the importance of protecting personal information, personal information is not shared with third parties.



#### Information Security

The requirements of ISO 27001 information security management system are fulfilled at Ekin.



#### **Ethical Values**

In all our business relations, our principle of mutual benefit by adhering to laws and ethics is our principle.



## CERTIFICATES

















| (Section IX, ASME Boiler and Pressure Vesso               |         |                       |                                   |                    | sel Code) TUV MO   |  |                           | ORD                               |  |
|---|---------|-----------------------|-----------------------------------|--------------------|--|--|---------------------------|-----------------------------------|--|
|   |         |                       | ATE 09-1                          | 702-01-            | C-10-2017-2114   | 02991  |                           |                                   |  |
| Procedure Qualifica                                       |         |                       |                                   |                    |  | _  |                           |                                   |  |
|   |         |                       |                                   |                    | Adress : DES Sanayi Sitesi 107.5k. B14 Blok No:2-4-6-8 Omraniye/IST<br>Type(s): Manual |  |                           |                                   |  |
| JOINTS (OW-402) Ge  |         |                       |                                   | -                  | Kholof wantes  |  |                           | -                                 |  |
|   | 6       |                       |                                   |                    |  | -  | >                         |                                   |  |
|   | 5       | -                     |                                   |                    |  | ,<br>A   | 7                         |                                   |  |
| BASE METALS (DW-403)                                      |         |                       |                                   | - 11-              | POSTWELD HEAT TREATMENT (QW-407)   |  |                           |                                   |  |
| Material Spec.  | 3-3-300 | ASTM                  |                                   |                    | Temperature -  |  |                           |                                   |  |
| Type or Grade, or U<br>P. No./Gr.No                       | 376 (X. | 316 (X20/NMto17-12-2) |                                   |                    |  | t.   | _                         |                                   |  |
| Thickness of Test C                                       | nuppn   | AV 1                  | 5                                 | 8/1                | Other:   |  |                           |                                   |  |
| Diameter of Test Coupon                                   |         |                       | N/A                               |                    |  | 1  | ercent Composition        |                                   |  |
| Max. Pass Thickness (\$ 13 mm)                            |         | No p                  | No pais over 13mm                 |                    | GAS (QW-108)   | Gas(es)  | Mixture                   | Flow Rat                          |  |
| Othert  |         |                       |                                   |                    | Shielding - GTA  |  | \$199,9                   | 6-9 L/mi                          |  |
|   |         |                       |                                   |                    | Shielding - FCAN   |  |                           | 4                                 |  |
| FILLER METALS (QW-404)                                    |         | GTAW                  |                                   | R/A                | Trailing<br>Backing  |  |                           | -                                 |  |
| WA Specifitacium  |         | A5.8                  |                                   | 41                 | Pacent   | _  |                           |                                   |  |
| AWS Classification  |         | ER 306 L              | -                                 | 11-                | ELECTRICAL CHARACTERISTICS (QW-409) GTAW   |  |                           |                                   |  |
| Trade Name  |         | 56 300 L              |                                   |                    | Current DC   |  |                           |                                   |  |
| Filler Metal F-No.  |         | 6                     | +                                 |                    | Polarity EN  |  |                           |                                   |  |
| Weld Metal Analysis A-No.                                 |         | T                     | 1.                                | 1.                 | Amps. 95-110   |  |                           |                                   |  |
| Size of Filler Metal                                      |         | 2                     | -                                 | *                  | Volts 10-12  |  | N                         |                                   |  |
| Filler Metal Product Form<br>Supplemental Filler Metal    |         | Solid Rod<br>N/A      |                                   |                    | Tungsten Electrode Size  |  | Z<br>0,61-1,71 kj/mm      |                                   |  |
| Supplemental Piter Metal<br>Weld Metal Thickness          |         | 5                     | -                                 | 1                  | Mode of Metal Transfer<br>for GMAW (FCAW)<br>Other                                     |  |                           |                                   |  |
| Hux Type  |         | N/A                   |                                   | 12                 |  |  | N/A                       |                                   |  |
| Hus Trade Name  |         | N/A                   | -                                 | -                  |  |  |                           |                                   |  |
| Other(C/W-404.14)   |         | N/A                   |                                   | -                  | TECHNIQUE (QW-410)   |  |                           |                                   |  |
| POSITION (OW-405)   |         | - inct                |                                   |                    | Travel Speed(mm)   |  | See below table           |                                   |  |
| Position of Grappe<br>Weld Progression (Uphill, Downhill) |         | 12-1-1-1              | 16                                |                    |  | String or Weave Bood<br>Oscillation<br>Multi/ Single Pass (per side) |                           | String Bead                       |  |
|   |         | 8                     | N/A                               |                    |  |  |                           | N/A                               |  |
| Other   |         | -                     |                                   |                    |  |  |                           | Multi Pass                        |  |
| PREHEAT (QW-406)  |         |                       | Mis. 10 <sup>8</sup>              |                    |  | Single or Multiple Electrodes  |                           | Single                            |  |
| Proheat Temperature(Min.)<br>Interpass Temperature(Mas.)  |         |                       | Min. 10"<br>Max. 200 <sup>5</sup> |                    |  | Method of Back Gouging   |                           | Grinding and Brishing<br>Grinding |  |
| use here an the maintained                                |         |                       | TOTAL AVY                         |                    |  | Other(COV-410.11 / CW-   |                           | - und failing                     |  |
| Other   |         | -                     | .+.                               |                    | 410.64   | dimense  | -                         |                                   |  |
| 100.0014  | 1       | Filler Metal          |                                   | Actual V           | alues<br>Ownet   |  | 001-01571150              | Lucion                            |  |
| Weld<br>Layers  | Process | Class                 | Olin.<br>(Dratt)                  | Type/<br>Failerity | Angers Renge   | Velifings (V)  | Yravel Byced<br>(mm/tac.) | Heat head<br>/ ince (             |  |
| 1   | G104    | (R.3081               | 2                                 | DC BH              | 205-138  | 11-12  | 1.17                      | 0.51-0.71                         |  |
| ×   | ST60    | ## 808 t              | 1                                 | 12.61              | 406-118  | 31:12  | LH                        | 6.91-3,85                         |  |
| 3   | ETAM    | CR 3681               | 1                                 | DCEN               | 305-110  | 11-11  | 6,22                      | 1,5-1,71                          |  |
|   | TIAN    | 19.3381               | 2                                 | DCEN               | 15.307   | 30-11  | 8.6                       | 1.15-1.17                         |  |
|   |         |                       |                                   | 1                  |  |  |                           |                                   |  |

TÜV Televik Kontrol ve Belgelendens A.Ş. Ayemredese Cad. Pazer Sk. Bereil Place No; 2-4 Kat A,Beyentepe, Istanbai-TÜBEHT Telefen: 190 212 255 28 42 Per: 190 212 295 38 44 8-medi <u>See rest Biter Lating</u> and



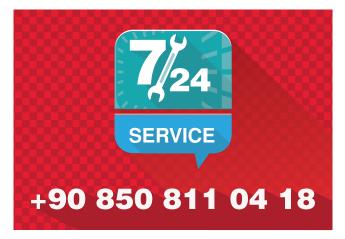
#### PROFESSIONAL SYSTEM SOLUTION CENTER

From our MIT professional system solution center, you can get help with problems with your pumps, heat exchangers and your system. Our solution center consisting of our expert engineers will be happy to help you.

- Domestic hot water installations.
- Central and district heating systems.
- Milk, yogurt, buttermilk heating, cooling and pasteurization systems.
- Industrial cooling and heating systems.
- Oil cooling systems.
- Energy recovery systems.
- Pool heating systems.
- Steam installations.



It is vital for your system to be designed and implemented correctly in the first installation in order to be able to operate at the desired capacity, smoothness and long life. For this reason, you can get first-hand



the technical support you need during the installation phase of your system and the problems that may arise in the business; You can reach us **24 hours +90 (216) 232 24 12 in 7 days**.

We would like to reiterate that we will be happy to share our knowledge accumulated over many years with our valued customers in order for your system to work correctly and performance.

Ekin will continue to be the best solution partner for you in all applications with all kinds of heating and cooling applications.



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Our products are produced with Turkish engineering technology in **135 countries** in the world today...



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## 444 EKİN



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