



EKİN ENDÜSTRİYEL

DC Fan Driven Oil Coolers  
User Manuals



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**The first condition of innovation is to question.**

**And the first condition of sustainable innovation is to question constantly.**

The journey of innovation has started with a question for us too: “How can we develop value-added technologies in Turkey?”. First turning point in this long journey was the birth of MIT (Made in Türkiye) brand. MIT made us the first plate heat exchanger producer of Turkey and it’s founding vision was not to become a local alternative, it was to build a high-quality brand that can compete on a global level.

While we are working towards this goal in the past 17 years, our products and processes deemed worthy for documentation by many national and international quality assessment institutions such as ISO, TSE, CE, GOST and many more. This was the natural outcome of our constant questioning of the status-quo and our desire to outperform ourselves.

## **New Generation Engineering**

With our engineering approach that focuses on the process, not the problem, we do not just specialize in a product, we consider the entire ecosystem of that product. Ergo, we produce all the other components of a system in addition to plate heat exchangers and we focus on the constant development of engineering staff required to provide an end-to-end application.

We provide a “solution” rather than a product with our business development, presales, sales and after sales services provided by our expert engineers.

In our 17th year, we continue to grow as a solution partner for projects that need high technology in more than 60 countries with our internationally approved high-quality plate heat exchangers; components such as accumulation tanks, boilers, industrial pumps and installation materials that completes these exchangers to form a system; and complementary services provided by our expert engineer staff.



## HEAT TRANSFER PRODUCTS

- Gasketed Plate Heat Exchangers
- Brazed Heat Exchangers
- Shell & Tube Heat Exchangers
- Evaporators and Condensers
- DC Fan Driven Oil Coolers
- Heat Coils
- Serpentine / Radiators / Economizers

## PRESSURE VESSELS

- Water Heater Tanks
- Water Storage Tanks
- Buffer Tanks
- Expansion Tanks
- Stainless Steel Tanks
- Balance Tanks / Dirt Separators / Air Separators / Air Tubes
- Steam Separators
- Pressured Air Tanks
- Neutralization Units

## INDUSTRIAL AND FOOD GRADE SYSTEMS

- Heat Stations
- Industrial Process Systems
- Dosing Systems
- Substations
- Thermoregulators
- Pasteurizers
- CIP and Hygienic Process Systems
- Hygienic Storage and Process Tanks
- Homogenizers
- Turn-key Projects

## FLUID TRANSFER PRODUCTS

- Lobe Pumps
- Hygienic Centrifugal Pumps
- Twin Screw Pumps
- Gear Pumps
- Magnetic Drive Pumps / Thermoplastic Pumps
- Dosing Pumps
- Air Operated Double Diaphragm Pumps (AODD)
- Drum Pumps
- Monopumps
- Peristaltic (Hose) Pumps
- Centrifugal Blowers
- Roots Blowers
- Turbo Blowers

## FLOW CONTROL UNITS

- Butterfly Valves
- Ball Valves
- Globe Valves
- Knife Gate Valves
- Actuators
- Check Valves and Strainers
- Thermoplastic Valves

## ENERGY SYSTEMS

- Boilers
- Steam Generators
- Solar Collectors
- Chillers
- Cooling Towers

PRODUCT RANGE



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### Construction

MIT fan oil coolers are produced by combining barplate, hood, fan and motor as shown in figure 1.

### Function

MIT fan oil coolers are used to cool the fluid passing through the bar plate by drawing or blowing the ambient air through the fan and motor inside.

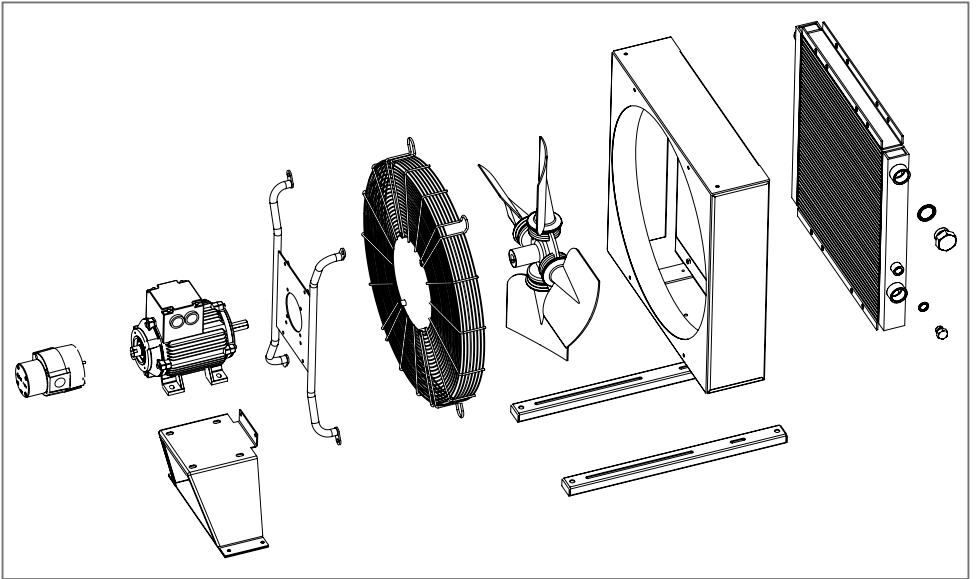


Figure 1

### Warnings and Symbols

Before installing the cooler to your machine, read this manual carefully and be careful about the warnings.

### Warning Labels on the Radiator



Fig 1.



Fig 2.



Fig 3.

Fig 1 – High temperature – The cooler surface may be at high temperature, do not touch it.

Fig 2 –Stuck in the fan - It is recommended not to remove the fan guard cover.

Fig 3 – Noisy operation – It is recommended to use headphones in case of loud noise.

### MIT Fan Oil Cooler Usage Areas

- Water
- Engine oil
- Hydraulic oil
- Air
- Please contact MIT design engineers for your different fluid applications.

### MIT FYS Lifting and Moving Instruction

Our chillers are packed and shipped in pallets, boxes or wooden crates, depending on size and weight, together with standard installation accessories. Products with dimensions and weights that cannot be transported by human hands should be lifted with suitable lifting equipment. For products with narrow mounting areas, they can be lifted and mounted by means of hanger hooks. Before lifting, remove all packaging materials, if there is an impact on the cooler during transportation, do not assemble and contact with MIT officials.



Figure 2-1



Figure 2-2

### MIT FYS Assembly Instruction

- Product assembly should only be done by trained technical personnel.
- The mounting position must be such that it allows the necessary airflow. (Figure 3)
- A strainer must be placed at the oil inlet and must be cleaned periodically.
- The soundness of the devices on the MIT fan oil cooler should be checked frequently (such as thermometer, valve, thermostatic valve, etc.) and the defective ones should be repaired or replaced.
- The MIT fan oil cooler must be securely mounted on the floor or pedestal.
- It should be installed away from exhaust gas and dust.

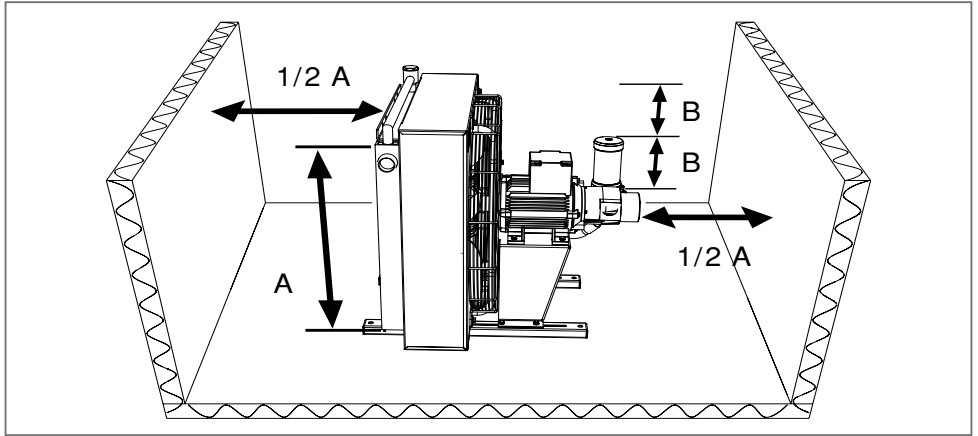


Figure 3

### MIT Fan Oil Cooler Activating Instructions

- Correct connections of the cooler and their tightness should be checked.
- It should be checked that the cooler is firmly fixed.
- The refrigerant should not be increased above the operating pressure.
- The refrigerant fluid must be filtered.
- Flow rate should be kept constant.
- Electrical components and plastic parts should be prevented from being affected by ambient humidity and heat sources.
- The return line of the system should be connected to the inlet of the cooler and the outlet of the cooler should be connected to the tank.
- The hose between the tank and the coolant should be as short as possible and suitable for the flow rate.
- 230V-440V electrical connection must be made by a qualified electrician.
- The cooler must be in a position that will not be affected by environmental contamination.

### MIT Fan Oil Cooler Activating Instructions

It should be checked frequently whether the fixtures on the cooler installation are sound or not. The cooler should be serviced at least twice a year. MIT services are authorized for maintenance and repairs. The seller company is not responsible for the practices of unauthorized persons. Original spare parts should be used for maintenance and repairs. In case of clogged air passage channels, you can wash with water in the direction of air flow. Otherwise, the fins will be crushed and block the airflow. During washing, the electrical connection of the fan motor must be disconnected and protected.

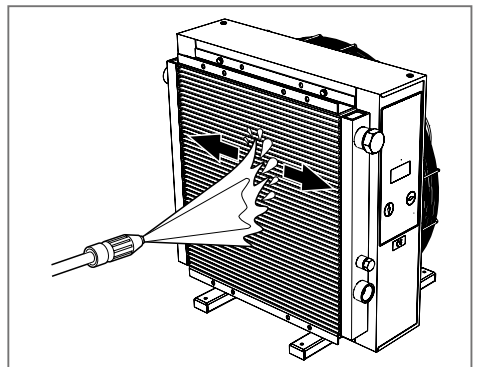


Figure 4



## **Matters to be Considered During Handling and Shipping**

- Loading should be done by crane or forklift while the cooler is placed on the vehicle.
- The covers of the vehicle's body, where the refrigerant will be loaded, must be opened beforehand.
- Raise the refrigerator slowly so that its lowest level is 30 – 40 cm above the ground.
- Avoid sudden movements that will cause the cooler to shake.
- After the cooler is brought to the side of the vehicle, it should be placed 30 – 40 cm above the body level of the vehicle lift, and lower it properly onto the chassis of the vehicle (The heat exchanger must be lowered onto the transport legs of the vehicle).
- When the cooler is lifted by crane or forklift, there should be no living things under the heat exchanger.
- The cooler must be transported in an upright position using the carrying ring.

## **Transportation of MIT Fan Oil Cooler on Vehicle**

- While the refrigerant is being transported by the vehicle, it should be firmly attached to the vehicle, and supports should be placed around it to prevent it from slipping.
- The refrigerant should not be transported together with materials that will be crushed or with living things.
- After placing the cooler in the vehicle, it should be covered with a tarpaulin.
- The driver of the vehicle should avoid any sudden movements that will cause any danger.

## **Warranty and Service**

MIT Fan Oil Coolers are under warranty for 2 (two) years from the date of sale against material and manufacturing faults, provided that the rules, warnings and applicable standards specified in the assembly, commissioning, use and maintenance manual are followed.

In order for your warranty certificate to be valid, your Warranty Certificate must be filled in by the Ekin Industrial MIT authorized service from which you bought the device and should be sent to the production facilities in Ekin Industrial company Dudullu Organize Sanayi Bölgesi Des Sanayi Sitesi 107. Sk. B14 Block No: 2 Ümraniye / İstanbul.

## **PROBLEMS THAT MAY OCCUR DUE TO INCORRECT INSTALLATION, MAINTENANCE OR USE OF YOUR REFRIGERANT ARE NOT COVERED BY THE WARRANTY.**

The minimum service life specified by the Ministry of Industry and Trade for MIT fan oil coolers is 10 (ten) years. Manufacturers and vendors undertake to provide service and spare parts within this period.

When you encounter any problem, you can reach Ekin Industrial MIT authorized services from anywhere in your country.



## Notes

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## Notes

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# CERTIFICATE OF WARRANTY

## The Document's Confirmation Date and Number:

The usage of this document has been authorized by T. C. Sanayi Bakanlığı İl Müdürlüğü in accordance with the Law No: 4077 on the Protection of Consumers and the Communiqué on the Implementation of the Guarantee Certificate put into effect based on this Law.

## WARRANTY CONDITIONS

1. Warranty period starts from the delivery date of the goods.
2. In case of malfunction of the products within the warranty period, the time spent in the repair is added to the warranty period. The repair period of the goods is maximum 30 working days. This period starts from the date of notification to the service station of the defect goods. In the absence of service station, this period starts from the date of notification to the seller, dealer, agent, representative, importer or manufacturer of the goods.
3. In case of malfunction of the goods within the warranty period due to material, workmanship or assembly defects, the goods will be repaired at no cost and no additional cost will be asked from buyer under the name of changed part price or any other name.
4. Defects caused by the use of the product contrary to the items in the user manual are out of the warranty.
5. For the problems that may arise regarding the Warranty Certificate can be applied to the Sanayi ve Ticaret Bakanlığı, Tüketicinin ve Rekabetin Korunması Genel Müdürlüğü.
6. The manufacturer may request that the product be sent to its own production facility at its own discretion. The shipping cost to be spent by the customer belongs to the manufacturer if it is evaluated within the scope of warranty as a result of the examination made on the product. If the defect is not evaluated under the warranty, all costs incurred will be invoiced to the customer.
7. The manufacturer is not responsible for any damages and losses that may occur in the cargo or warehouse during the shipment of the product.
8. The manufacturer accepts no liability for the damage cause by the following reasons:
  - Failure to comply with temperature, pressure or other conditions specified in the technical specifications.
  - Incorrect applications and normal abrasion conditions.
  - Damages that may occur from sudden opening and closing of the fluid valves.
  - Damages cause by the usage of non-original spare parts.
  - Damages that may occur during shipping.
  - Damages that may arise from corrosion.
  - Blockages cause by the fluid passed through inside the product.
  - Damages that may arise from condensate discharge in products which are used in steam applications.
  - Damages that may occur by the blockages cause by the solid materials which can block the products.
  - Damages that may occur as a result of incorrect interventions by the un-authorized services.
  - Damages that may be caused by the lack of fixtures or not working properly.
  - Accidents and problems that may occur in the system if the safety fixtures (safety valve, thermostat, pressure sensors, temperature sensors etc.) are not used are not considered under warranty. The manufacturer is not responsible for any of the pecuniary and non-pecuniary damages that may occur.
9. Manufacturer is not responsible for secondary damages, loss of production and accidents whether it is under warranty or not.
10. All of the above items have been specified in our offer and order confirmations and you have been informed that they supersedes the contract. Commissioning of the product means acceptance of the contract.

For the product that was sold to ..... LTD. ŞTİ./A. Ş / Legal Entity on ...../20... with stated model, brand and serial number, all kinds of manufacturing and material defects are covered by the warranty of our company for 2 (two) years.

SELLER

DEALER

END USER

Brand :

Product Type :

Product Code :

Serial No :

Product No :

Please keep this certificate!

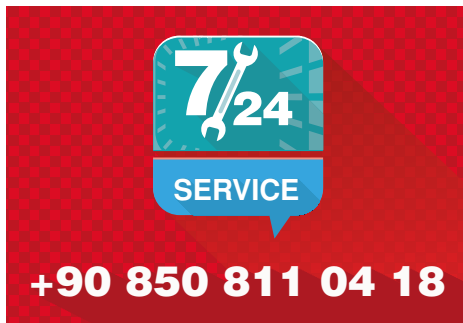
## Professional System Solution Center

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, 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.**



**7/24**  
**SERVICE**  
**+90 850 811 04 18**

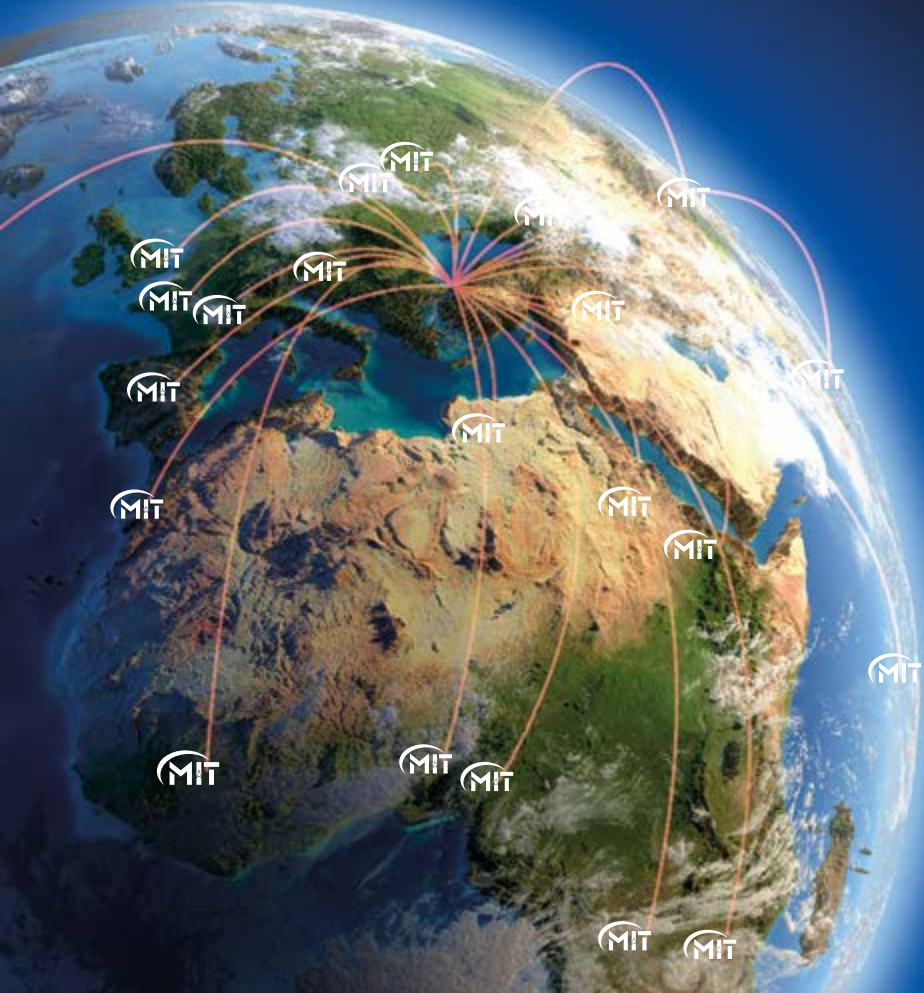
We would like to reiterate that we will be happy to share our knowledge accumulated over many years with our valued customers in order for your system to work correctly and performance.

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

 Producer; reserves the right to change the product features, technical dimensions and information and installation diagrams specified in this catalog without notice. No specified information can be copied and used without the permission of the manufacturer. In no way can the manufacturer be held responsible by giving examples of technical information and diagrams. In case of need, we request you to request a special technical drawing for your project for exact dimensions.



Today; **135 points** in the world.



 **EKIN ENDÜSTRİYEL**  
Isıtma-Soğutma San. Tic. Ltd. Şti.

Dudullu Organize Sanayi Bölgesi - Des Sanayi Sitesi  
107. Sk. B14 Blok No: 2 Ümraniye / İstanbul / Turkey  
**Phone:** +90 216 232 24 12 **Fax:** +90 216 660 13 08  
info@ekinendustriyel.com - [www.ekinendustriyel.com](http://www.ekinendustriyel.com)

+90 216  
**444** EKİN  
3546

