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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 Turkey) 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 15 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 15th 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.
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EXCHANGER MODEL AND PLATE NUMBER

MIT PHE’s labels above cover plate has information that you need. For more information please contact Ekin Industrial.

MB - 08 - 30 - 3.0 - HQ-F1F2(R1’)/F3(H3/8)/F4(H5/8)

Connection
Distributor
Plate Channel H.L.M
Design Pressure (MPa)
Plate Number
Model Number
Brazing Material
MIT Label Code

Double Gas System: HDQ

WARRANTY

EKIN INDUSTRIAL offers a 12-month warranty from the date of installation. The warranty covers only manufacturing and material defects.

DISCLAIMER

The performance of MIT BPHEs is based on their installation, maintenance and operating conditions being in conformance with this manual.
GENERAL INFORMATIONS

MIT-MB series exchangers has a label on the front side that showing connection location, you can also check working pressure the label.

FLOW CHART

MIT-MB series BPHE works with parallel flow principles flow direction shows below:

Optional Sensor Input
Back Cover Plate
Channel Plate / Refrigeration
Channel Plate / Water
Connection
Body
LIFTING INSTRUCTIONS FOR LARGER BPHE

A. Lifting horizontal position.
B. Lifting from horizontal to vertical position.
C. Lifting in vertical position.

Risk of personal injury. Maintain a safety separation of 3 m when lifting.

ASSEMBLY

Never expose the BPHE to excessive pulsations (i.e. cyclic pressure or temperature changes). It is also important that no vibrations are transferred to the BPHE. If there is a risk of this, install vibration absorbers. For large connection diameters, we advise you to use an expanding device in the pipeline. It is also suggested that a buffer (e.g. a rubber mounting strip) be installed between the BPHE and the mounting clamp.

Mounting Directions

MIT BPE’s should install vertical position. Primer side hot fluid inlet should be upper connection and return lower connection. Seconder side cold fluid should be inlet lower connection and hot fluid will going upper connection. Exchangers working parallel flow.
Mounting suggestions

- Mounting suggestions.
- Sheet metal bracket (x = rubber insert).
- Crossbar and bolts (x = rubber insert).
- With mounting stud bolts on the front or back cover plate.
- Support legs are available for some larger BPHEs.
- Insulation for refrigerant applications.
- Insulation for heating applications.

SOLDERING METHOD

Degrease and polish the surfaces. Apply flux. Insert the copper tube into the connection, hold it in place and braze with min. 45% silver solder at max. 450 ºC when soft soldering and 450-800 ºC when hard soldering. Do not direct the flame at the BPHE. Use a wet rag to avoid overheating the BPHE. Protect the BPHE’s interior (refrigerant side) from oxidation with N2 gas.

Freezing Protection

- Use a filter < 1 mm, 16 mesh.
- Use an antifreeze when the evaporation temperature is close to the liquid-side freezing point.
- Use a freeze protection thermostat and flow switch to guarantee a constant water flow before, during, and after compressor operation.
- When starting up a system, pause briefly before starting the condenser (or have a reduced flow through it).
- If any of the media contain particles larger than 1 mm (0.04 inch) a strainer should be installed before the BPHE.

Excessive heating can lead to fusion of the copper and thus to the destruction of the BPHE.

CLEANING OF THE BPHEs

The normally very high degree of turbulence in BPHEs produces a self-cleaning effect in the channels. However, in some applications the fouling tendency can be very high (e.g. when using extremely hard water at high temperatures). In such cases, it is always possible to clean the BPHE by circulating a cleaning liquid (CIP – Cleaning In Place). Use a tank with weak acid, 5% phosphoric acid, or if the BPHE is cleaned frequently, 5% oxalic acid. Pump the cleaning liquid through the BPHE. For optimal cleaning, the flow rate should be at least 1.5 times the normal flow rate, preferably in a back-flush mode. Reverse the flow direction every 30 min if possible. After cleaning, remember to rinse the BPHE carefully with clean water. A solution of 1-2% sodium hydroxide (NaOH) or sodium bicarbonate (NaHCO3) before the final rinse ensures that all acid is neutralized. Clean at regular intervals.
CERTIFICATE OF WARRANTY

The Document’s Confirmation Date And Number:
The use of this document has been authorized by T.C. Sanayi Ticaret 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. All parts of the goods are covered by our company’s warranty.
3. In case of malfunction of the goods 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.
4. 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 the buyer under the name of changed part price or any other name.
5. Malfunctions arising from the use of the product in contravention of the provisions in the user manual are not covered by the warranty.
6. For the problems that may arise in relation to the warranty certificate can be applied to the Sanayi ve Ticaret Bakanlığı Tüketici ve Rekabetin Korunması Genel Müdürlüğü.

For the product that was sold to .................. LTD. ŞTİ. / AŞ / 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 two years.

Brand: ______________________
Model: ______________________
Serial No: ___________________

SELLER  DEALER  END USER

NOT: User mistakes are not covered by warranty.
www.ekinendustrial.com
PROFESSIONAL SYSTEM SOLUTION CENTER

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

- Domestic hot water installations.
- Central and district heating systems.
- Milk, yoghurt, 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 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.
Today; **135 points** in the world.