



EKİN ENDÜSTRİYEL

**LOBE PUMPS
PRODUCT CATALOGUE**

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





Sustainable Innovation, Quality Standardization and Dynamism

Ekin Endüstriyel, 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 • Buffer 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 • Hygienic Storage and Process Tanks • Homogenizers • Standartization Systems • Evaporators • 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

Lobe Pumps



MIT LOBE PUMPS

MIT lobe pumps are valve-free and positive-displacement pumps. Each MIT pump is a special solution. Lobe pumps are fully designed to meet the requirements of applications.

Working Principle of MIT Lobe Pumps

As the rotor rotates, the volume in the pump inlet line increases and the fluid is dragged into the pump. The fluid remaining between the rotors and the pump inner wall is transported to the pump outlet. These pumps are mainly composed of three or two lobe rotors which rotate from each other within the body. The rotation of the rotor pair can be defined by the direction of rotation of the drive, which creates a vacuum on the suction side of the pump. This vacuum draws fluid into the pump body. When the rotor is rotated, it is transferred to the fluid outlet line as a result of the volume decrease at the outlet.



Features

- Thanks to its positive displacement feature, it is used without problems in transferring low, medium and high viscosity fluids.
- No problem can be used when transferring products at temperatures in the range of 0-150 °C.
- Easy installation and maintenance.
- Easy transport of adhesive, abrasive or surface-sensitive fluids.
- 4 different rotors available, 2 lobe rotors, 3 lobe rotors, butterfly rotors and single butterfly rotor-shaped.
- Two lobe options for products containing solid particles (like jam, molasses).
- Mechanical seal with double (wash) cartridge, mechanical seal, gaskets (for applications such as glucose, jam).
- Standard input / output as standard pump can easily convert from top to bottom input / bottom outlet.
- Rotation in both directions (counterclockwise and clockwise).
- The gearbox is made of cast iron with a protective coating coated with epoxy paint.
- All bar, rotor and pump body are made of AISI 316 stainless steel.
- As the material quality of the surfaces in contact with the fluid is AISI 316 stainless steel, they are used in applications requiring hygiene.
- Clamp, food fitting and flange connection options are available.

ADVANTAGES OF MIT LOBE PUMPS

- Easily transfer medium size solids.
- There is no friction between the surface materials during the fluid transfer.
- The pump can be cleaned while it is connected to the service line.
- Quiet operation.
- In pumps with optional heating jackets, the flow of fluid through the material is prevented from freezing and provides an easy flow. It transfers smoothly without disturbing the product to be transferred.
- Optionally, it can be used in different application areas by making dashboard application on portable wheeled chassis. The only thing to do is to connect the power line to the board on the chassis.
- Taking the energy from the vehicle without taking up space on land vehicles, it provides convenience especially in the unloading and filling operations of food tankers.
- It carries out the transfer of high viscosity products without any problems.



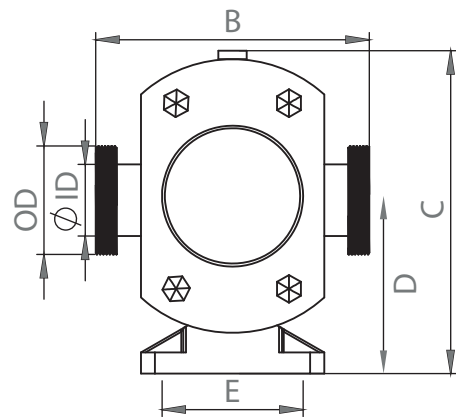
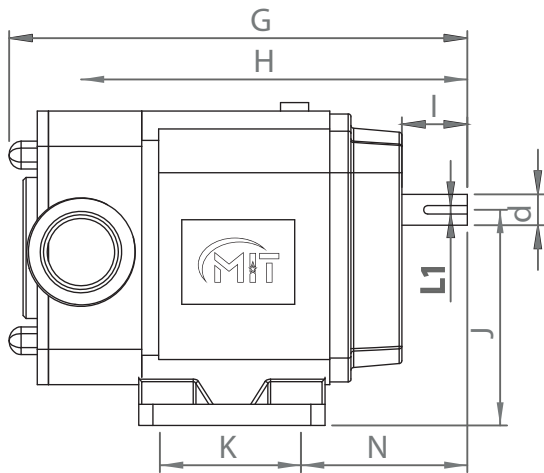
LOBE PUMP SELECTION

The specifications of the product to be transferred and the line to be transferred to the lobe are the desired technical details. The desired values are shown in the table below in detail.

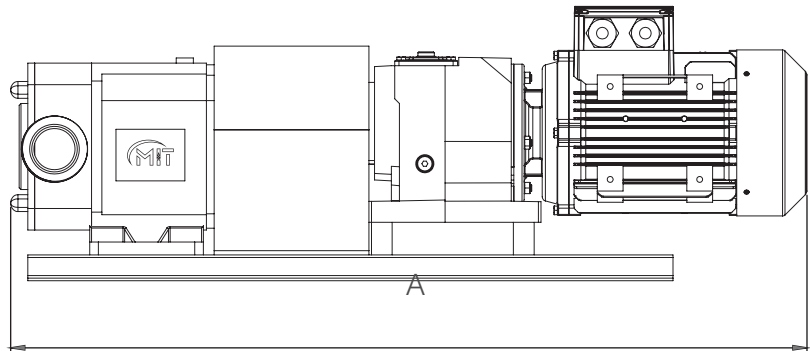
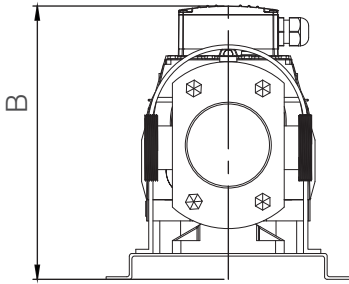
Desired Details	Sample Information
Type of Fluid	Chocolate, honey, buttermilk etc.
Flow Rate of Fluid	m ³ /H, L/H, TON/H etc.
Pressure of Fluid	Bar, mSS vb.
Viscosity of Fluid	cP, cSt vb.
Temperature of Fluid	°C
Density of Fluid	g/cm ³

Heating jacket, which is designed to prevent the product from freezing in the pump, is applied on the pump according to the demands.

MOTOR-FREE PUMP DIMENSION TABLE



Model	B	C	D	E	K	G	H	I	J	L1	OD	ID	d
MLP 20	182	229	123	100	100	311	260	46.5	153	6	52	25	22
MLP-23	191	229	123	100	100	315.5	264.5	46.5	153	6	64.5	35	22
MLP-25	194	229	123	100	100	325	274	46.5	153	6	77	47.8	22
MLP-30	225	271	149	125	125	432.5	357	56	186.5	8	77.5	47.8	28
MLP-36	260.5	271	149	125	125	438.5	363	56	186.5	8	77.5	59.5	28
MLP-55	240	271	149	125	125	443.5	368	56	186.5	8	77.5	66	28
MLP-60	245	271	149	125	125	447.5	372	56	186.5	8	109	72.2	28

MOTOR-REDUCER DIMENSION TABLE


Motor Series	A	B
002	715	285
003	715	285
102	745	285
172	865	325
202	910	320
272	915	320
282	930	320

Motor Series	MLP-20	
	A	B
002	715	285
003	715	285
282	930	320

MODELS AND CAPACITIES

Model	Flow (m ³ /h)	Pressure (bar)	Motor Power (kW)	Recommended Cycle (min-1)	Flow in Each Cycle (L/rev)	Input-Output Connection Dimensions
MLP-20	1-2	20	3,0	100-450	0,15	1"-DN25 DIN, SMS, DF, RJT
	1-3	15	2,2			
	1-3	12	1,5			
	1-3	9	1,1			
	1-3	5	0,75			
MLP-23	2-5	20	4,0	100-450	0,212	1,5"-DN40 DIN, SMS, DF, RJT
	2-5	15	3,0			
	2-5	12	2,2			
	2-5	9	1,5			
	2-5	5	1,1			
MLP-25	3-7	15	5,5	100-450	0,298	2"-DN50 DIN, SMS, DF, RJT
	3-7	10	4,0			
	3-7	7	3,0			
	3-7	4	2,2			
MLP-30	5-10	20	7,5	100-400	0,496	2"-DN50 DIN, SMS, DF, RJT
	5-10	12	5,5			
	5-10	8	4,0			
	5-10	4	3,0			
MLP-36	6,5-13	18	7,5	100-400	0,631	2,5"-DN65 & 2" -DN50 DIN, SMS, DF, RJT
	6,5-13	10	5,5			
	6,5-13	7	4,0			
	6,5-13	3	3,0			
MLP-55	7-14	12	7,5	100-400	0,705	2,5"-DN65 DIN, SMS, DF, RJT
	7-14	9	5,5			
	7-14	6	4,0			
	7-14	3	3,0			
MLP-60	8-16	10	7,5	100-400	0,778	3"-DN80 DIN, SMS, DF, RJT
	8-16	9	5,5			
	8-16	5	4,0			
	8-16	3	3,0			
MLP-70	15-31	18	15	100-360	1,791	3"-DN80 DIN, SMS, DF, RJT
	15-31	12	11			
	15-31	9	7,5			
	15-31	5	5,5			
MLP-80	20-40	15	15	100-360	1,824	3"-DN80 DIN, SMS, DF, RJT
	20-40	10	11			
	20-40	7	7,5			
	20-40	4	5,5			
MLP-100	25-50	10	11	100-360	2,299	4"-DN100 DIN, SMS, DF, RJT
	25-50	6	7,5			
	25-50	3	5,5			
MLP-125	31-62	10	15	100-360	2,922	5"-DN125 DIN, SMS, DF, RJT
	31-62	7	11			
	31-62	4	7,5			

WORKING PRINCIPLE

As the rotor rotates, the volume in the pump inlet line increases and the fluid is dragged into the pump. Fluid between the rotors and the pump inner wall is transported to the pump outlet.

MIT lobe pumps are designed to provide reliable performance, trouble-free operation and superior energy efficiency for demanding applications. These hygienic pumps meet the high standards of low damage to the product and low pressures.



MAINTENANCE AND REPAIR

Thanks to its compact structure, MIT lobe pumps can be operated in the field and in a very short time and easily.

Before the pump is serviced, the electrical connections must be disconnected from the pump motor.

After this operation, the pump can be serviced and repaired.

- The maintenance and replacement of the lobes can be made with the pump and line connections and the dismantling of the front cover bolts without dismantling the coupling connections between the motor and the pump.
- In this section, the lobes can be easily removed and cleaned and maintained.
- The front body must be removed for replacement of the packing. The dismantling process of the body can be done in a simple way.
- The oil reservoir in the gear unit is replaced by opening the oil drain plug periodically. This will increase the life of the gears.
- After necessary cleaning, all parts are removed and reassembled. When switching on the pump, electrical connections must be made according to the direction of rotation of the motor.



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





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.**



+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.

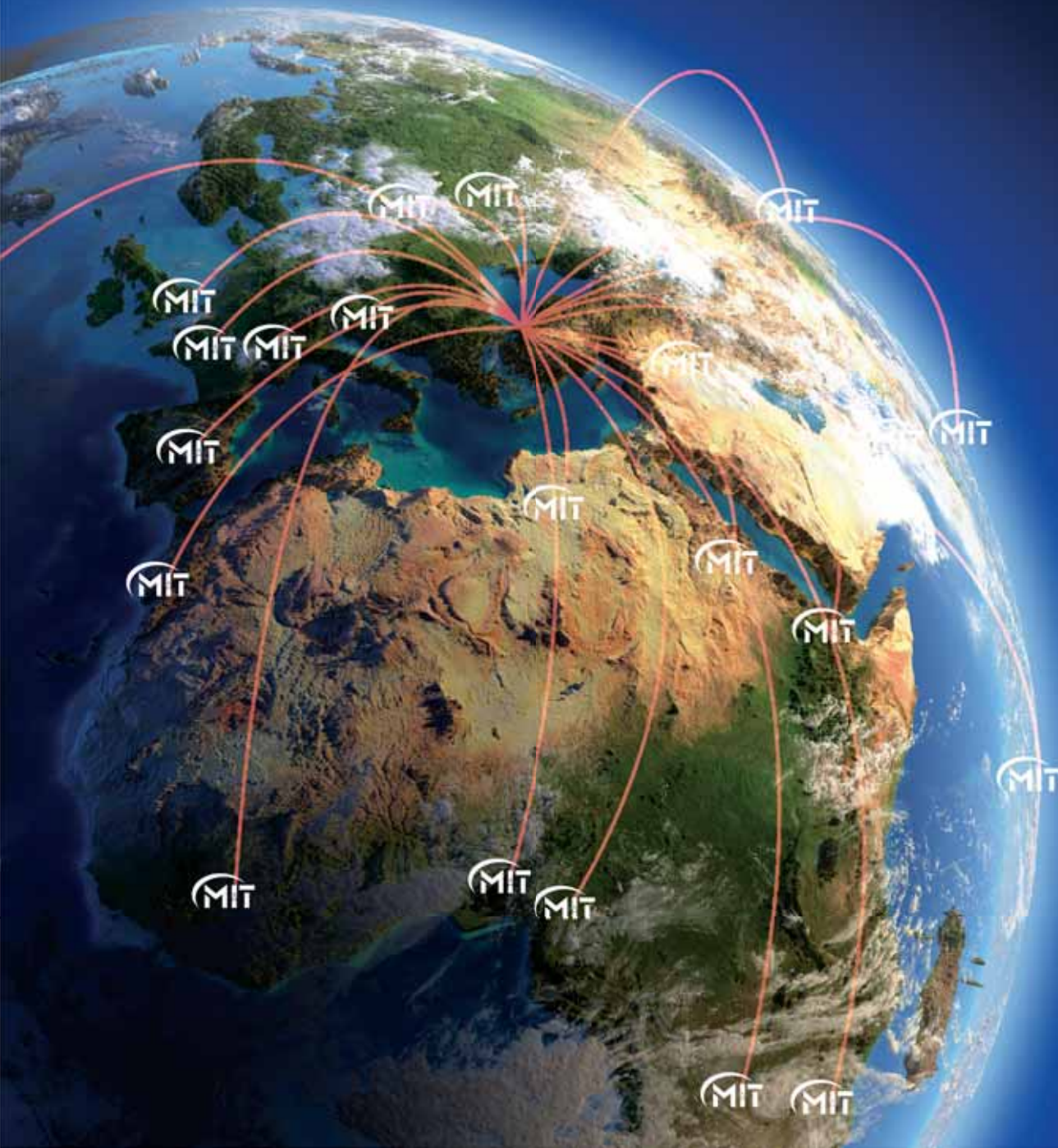


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Our products are produced with Turkish engineering technology in **135 countries** in the world today...





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