



GEAR PUMP PRODUCT CATALOG

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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.

















HEAT TRANSFER PRODUCTS

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





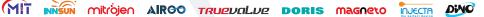
























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MIT GEAR PUMPS

MIT Gear pumps are positive displacement pumps without valves. Every MIT pump is a special solution. Gear pumps are designed to completely meet the needs of applications.





Features and Materials of MIT Gear Pumps

- Materials to be used in the pump; It would be change according to the product transferred by the pump.
- Since the chemical and physical properties of each liquid are different, their interaction with the pump material differs.
- For this, the materials used in the pump are selected according to the liquid. For example, the bearings of the pump used in the transfering of a liquid with a lubricant feature are bronze, while the bearings of the pump used in the transfering of an acid-borne liquid are selected as carbon.
- Food transfer pumps should be made of completely stainless or Teflon material that is in contact with the liquid.
- After the pump material is determined, it is decided that the pump will be jacketed or without jacketed according to the necessity of heating or cooling the pump.
- Internal bypass is optionally available on pumps.

ADVANTAGES OF MIT GEAR PUMPS

- It can transfer medium sized solids.
- There is no friction between the surface materials during fluid transfer.
- The pump can be cleaned while it is connected to the service line.
- It works silently.
- Ilt provides an easy flow by preventing the fluid passing through the material from freezing in pumps with heating jacket option. It easily transfers the product to be transferred without disturbing its feature.
- As an option, it can be used on a portable wheeled chassis, by making panel application, it provides convenience in different areas of use. All it takes is to connect the power line to the panel on the chassis.



- By taking its energy from the vehicle without taking up space on land vehicles, it provides convenience especially in the process of unloading and filling of food tankers.
- It performs the transfer of low and high viscosity products without any problem.



Information on Gear Pump Selection

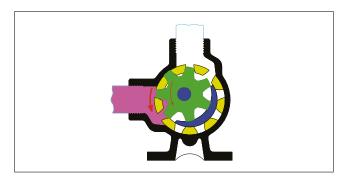
When making gear pump selections, the features of the product to be transferred, the features of the line to be transferred are the desired technical details. These values are shown in the table in detail below.

Requested Details	Sample Information
Fluid Type	Chocolate, honey, ayran etc.
Fluid Flow	m³/H, L/H, TON/H vb.
Fluid Pressure	Bar, mSS vb.
Fluid Viscosity	cP, cSt vb.
Fluid Temperature	°C
Fluid Density	g/cm³

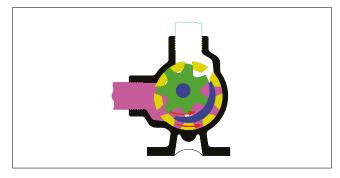
INTERNAL ECCENTRIC GEAR PUMPS

Working Principle

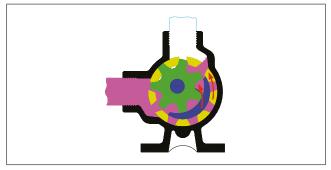
Internally eccentric gear pumps are positive displacement and consist of two moving parts. While the ring gear connected to the pump shaft rotates, it also transmits motion to the idler gear and the idler gear rotates as well. During this rotation, the idler gear and the ring gear are separated from each other by means of a crescent and a vacuum is formed. Owing to the vacuum formed, the pump draws a certain amount of liquid into it. The liquid drawn into the pump moves towards the discharge nozzle in the thread cavities. In the discharge nozzle, the idler gear and the ring gear are intertwined to create pressure and allow the liquid to be discharged. Pump; Each time the pump shaft rotates, it transfers fluid as much as its volume. Therefore, the capacity of the pump is directly proportional to its size and RPM. The working principle of internal eccentric gear pumps is shown schematically below.



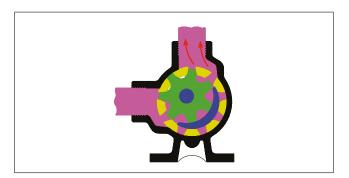
1- The ring gear (rotor) rotates in the direction of the arrow with the circular movement it receives from the motor, while the inner idler gear (star) rotates and separates from the ring gear. Fluid fills the gap caused by the separation of the gears.



2- With the half-moon (crescent) located on the pump cover, the gears are separated from each other and liquid is transported with gear gaps.



3- When the peripheral gear and the idler gear are intertwined, the liquid is thrown into the discharge channel.



4- The liquid thrown into the discharge channel proceeds from the installation and the transfer process is realized.



Internal eccentric gear pumps are gathered in two main groups, console and non-console. The console provides the opportunity to convert the inlet and outlet ports of the pumps into eight different positions (45° interval) in terms of ease of assembly, and because the pump shaft bearing is more rigid, the pumps are able to operate for a longer life in heavier conditions.





CONSOLE-FREE PUMP

CONSOLE PUMP

Internal Eccentric Gear Pump Capacity Table

Pump	Pump Model	Inlet & Outlet	Max. Pressure Bar	In Outdoor			Most Used			Powe	r (Kw)	Weight (Kg)	
Туре				L/ Rotation	L/Min	M³/H	Rpm	Kw	Нр	Min.	Max.	Without Console	With Console
	FB-41	1/4"	10	0,0011	1,65	0,1	1450	0,55	0,75	0,25	0,75	2,5	
	P-83	3/8"	6	0,004	5,83	0,35	1450	0,55	0,75	0,25	0,75	2	3
	Ö-1	1"	10	0,017	22,3	1,5	1450	1,1	1,5	0,55	1,1	7	13
	A-1	1"	10	0,022	33	2	1450	1,1	1,5	0,55	1,1	7	13
	B-211	1 1/2"	12	0,052	78	4,7	1450	1,1	1,5	0,75	3	12,6	18
	SO-211	1 1/2"	12	0,077	115,5	6,7	1450	1,1	1,5	0,75	3	12,6	18
	ZNP-2	2"	12	0,133	133	8	1000	4	5,5	1,5	7,5	-	42
Internal	AKY-2	2"	14	0,3	300	18	1000	5,5	7,5	3	7,5	33	54
Eccentric	URZ-2	21/2"	14	0,44	200	12	450	7,5	7,5	3	7,5	33	54
Gear	ZNP-212	21/2"	14	0,85	375	22,5	450	11	10	4	11	40	90
	AKY-212	3"	14	1,45	580	35	400	11	15	5,5	15	48	97
	TCK-3	3"	14	1,45	580	35	400	11	15	5,5	15	48	97
	SCR-3	4"	14	2,1	840	50	400	11	15	11	37	135	240
	ATK-4	4"	14	2,1	840	50	400	11	15	11	37	135	240
	ADK-4	4"	14	3,83	1530	92	400	15	20	11	45		267
	DK-6	6"	14	3,83	1530	92	400	15	20	11	45		267
	DCK-6	6"	14	5,85	1750	105	300	30	40	22	45	210	270

Pump Connection Types



FLANGE CONNECTED



PIPE THREADED (SCREWED) CONNECTED



Heating Jackets



COVER HEATING JACKET



BODY HEATING JACKET



CONSOLE HEATING JACKET

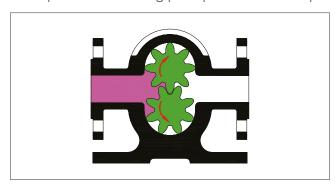


CONSOLE + BODY + COVER HEATING JACKET

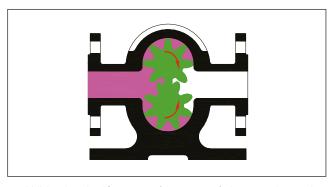
HELICAL & SPUR GEAR PUMPS

Working Principle

Helical & Spur gear pumps are positive displacement and consist of two moving parts. The pump shaft transmits the circular motion it receives from the motor to the gear on the shaft. While the rotator gear transmits its movement to the rotated gear in the opposite direction, the gears separate from each other and a vacuum is formed. Thanks to the vacuum formed, the pump draws a certain amount of liquid into it. The liquid drawn into the pump moves towards the discharge nozzle in the dental cavities. In the discharge nozzle, the gears intertwine and create pressure and allow the liquid to be thrown out. Pump; Each time the pump shaft rotates, it transfers fluid as much as its volume. Therefore, the capacity of the pump is directly proportional to its size and speed. The working principle of Helical & Spur gear pumps is shown schematically below.

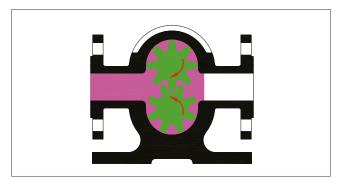


1- The Pump Shaft transmits the movement it receives from the motor to the rotator gear and the rotating gear begins to rotate in the direction of the arrow. While the rotating gear transmits its movement to the rotated gear in the opposite direction, the gears separate from each other. Liquid fills the gap created by the separation of the gears.



2- With the half-moon (crescent) located on the pump cover, the gears are separated from each other and liquid is transported with gear gaps.





3- When the peripheral gear and the idler gear are intertwined, the liquid is thrown into the discharge channel.



4- The liquid thrown into the discharge channel proceeds from the installation and the transfer process is realized.

Our helical & straight gear pumps are; Helical & straight gear pump, outboard ball helical gear pump, outboard ball & driven straight gear pump are gathered in three main groups. helical gear pumps operate with high efficiency in places where silent operation and continuous flow are desired. They have the ability to pass small and crushed particles in the liquid during transfer. Spur gear pumps work at high efficiency in the transfer of corrosive liquids, non-lubricating liquids and high temperature liquids in the places where medium pressure is required, externally ball and externally ball & driven helical gear pumps.





Helical and Spur Gear Pump Capacity Chart

Pump	Pump Model	Inlet/	Max.	l:	n outdoo	r	N	lost Use	d	Powe	Weight	
Туре		Outlet	Pressure	L/ Rotation	I/Min	M³/H	RPM	Kw	Нр	Min.	Max.	(KG)
	GP-83	3/8"	20	0,007	10,5	0,63	1450	0,55	0,75	0,25	0,75	2
	GP-411	1"	20	0,047	70,5	4	1450	1,1	1,5	0,75	4	14
	GP-1	11/4"	20	0,0619	92,85	5,5	1450	2,2	3	1,1	4	15
	GPK-211	11/2"	20	0,143	214,5	12,8	1450	3	4	2,2	7,5	21
	GP-211	11/2"	20	0,226	339	20	1450	5,5	7,5	2,2	11	27
	HLS-2	2"	14	0,44	440	26,4	1000	5,5	7,5	5,5	15	70
	HLS-212	21/2"	15	1,04	468	28	450	5,5	7,5	5,5	15	70
	FNR-212	21/2"	15	1,04	468	28	450	5,5	7,5	5,5	15	85
Helical & Spur Gear	FNRT-212	21/2"	15	1,04	999	28	450	5,5	7,5	5,5	15	100
opui acai	HLS-3	3"	15	2,22	999	60	450	15	20	11	22	130
	HLSB-3	3"	15	2,22	999	60	450	15	20	11	22	150
	HLSBT-3	3"	15	2,22	999	60	450	15	20	11	22	165
	HLS-4	4"	15	2,22	999	60	450	15	20	11	22	105
	HLSB-4	4"	15	2,22	999	60	450	15	20	11	22	125
	HLSBT-4	4"	15	2,22	999	60	450	15	20	11	22	140
	HLSC-8	8"	15	7,25	2250	135	300	30	40	18,5	110	760
	HLS-10	10"	15	11,7	2925	175	250	75	102	35	130	750



EKIN ACADEMY



A chain is only as strong as its weakest link.

Running and maintaining a quality production process that meets international standards requires focusing on quality all along the ecosystem. Maintaining this focus requires a unifying vision of constant improvement shared by all stakeholder, and a certain level of expertise for all parties involved. Ekin Academy was established with the principles of continuous development and growing together to share the knowledge and experience that will realize this vision.

We support the development of our employees with training programs that directly contribute to the results in their business processes and make a difference in their personal development. We offer technical trainings on heat transfer, pressure vessels, package systems, food systems and liquid transfer. We help them become individuals who will make a difference with our development programs that covers topics like leadership, strategy, sales and many more. In addition, we provide information regarding installation, operating, maintenance and repairs with our pre and after sales training modules prepared for our business partners and customers.

At Ekin Academy we do not solely focus on the development of our staff, partners and customers. Thanks to our university collaborations, we provide the means for future engineers to put their theoretical knowledge to use with practical applications.





We organize seminars, conferences and trainings for professional chambers, and institutions we collaborate on social responsibility projects. Because we know that only by investing in the society, the industry and the future of the industry, we can become a country known for its high-quality engineering products.



SALES TEAM

An Engineering Approach from Sales to Maintenance

We offer value added pre and after sale services with our customer satisfaction-oriented approach and deep expertise we are more than happy to share. Thanks to our expert engineers that provide proactive solutions, we focus on making a difference throughout the process, from presales to maintenance.

With our "quality product, quality service, quality solution" approach, we are more than a manufacturer and supplier, we are a highly motivated solution partner for all kinds of heating and cooling projects.





Customer Satisfaction

Our priority is to ensure customer satisfaction and protect the rights of our customers with our pre-sales processes that analyze customer needs well, quality-registered product range, expert staff and meticulous working methods.



Ethical Values

We conduct all our activities in accordance with the laws and then with ethical values. We believe in growing together and we look for mutual benefit in all our business relationships.



Privacy Policy

All your personal information shared with our company is guaranteed by our ethical values and our processes in compliance with the Law No. 6698 on Protection of Personal Data.



Information Security

All our information technology operations are protected by our information security processes, which are managed in accordance with ISO 27001 Information Security Management System requirements.





















































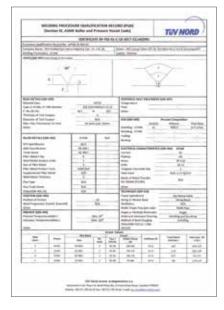






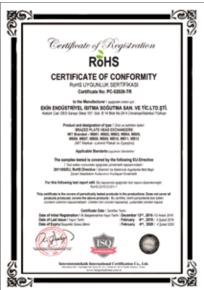
























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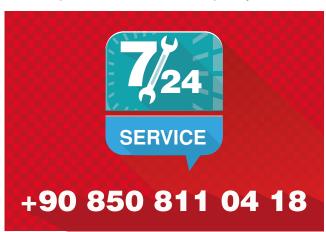
PROFESSIONAL SYSTEM SOLUTION CENTER

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.

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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