

yıldız 
pompa
VE MAKİNA A.Ş.

YILDIZ POMPA

Positive

Displacement Pumps

www.yildizpompa.de • www.yildizpompa.eu



As Yildiz Pompa, we manufacture internal gear pumps, modular and helical external gear pumps, lobe pumps, and internal and external gear pumps with magnetic couplings, which play a leading role in the transfer of viscous and semi-viscous liquids used in industry.

The pumps manufactured by our technical experts and our solution-oriented approach are used reliably in the following areas:

CHEMICAL & PHARMACEUTICAL INDUSTRY

- Pumping of viscous liquids (resins, polymers, syrups)
- Precise dosing of chemicals
- Pumping of aggressive or toxic media

FOOD INDUSTRY

- Pumping of viscous substances such as dough, honey, chocolate, yogurt
- Gentle pumping without severely damaging the product

OIL, GAS & ENERGY INDUSTRY

- Pumping of crude oil, heavy oil, lubricants
- High-pressure applications
- Fuel pumping

WATER & WASTEWATER TECHNOLOGY

- Sludge, sewage and wastewater pumping
- Medium containing solids
- Dosing of flocculants or cleaning agents

For high-performance, reliable and technically sophisticated solutions, Yildiz Pompa is at your service as a competent partner with its range of positive displacement pumps!



Company:

YILDIZ POMPA, a company specializing in the development and production of positive displacement pumps, was founded in 1975 by Veli Öztürk.

YILDIZ POMPA manufactures internal and external gear pumps, as well as rotary lobe pumps.

Production:

YILDIZ POMPA employs 47 people in a 5,000 mt production facility. State-of-the-art CNC lathes and CAM software are used. Annual production is approximately 15,000 pumps.

Mission:

The development and manufacture of positive displacement pumps for the pharmaceutical, food and chemical industries.

Vision:

To meet all the requirements of our global customers with a solution-oriented approach.

Values and Principles:

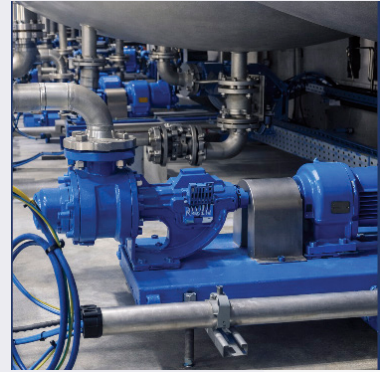
Honesty, respect, customer focus, and continuous improvement.



One-stop solutions at a high technical level

CHEMProjekt GmbH, in collaboration with its partner YILDIZ POMPA, offers qualified, customer-oriented solutions based on state-of-the-art technology. Processes are efficiently translated into process engineering and automation concepts.

CHEMProjekt GmbH implements customized solutions for the pharmaceutical, food, and chemical industries.



The employees of CHEMProjekt GmbH have over 30 years of experience in the sale and installation of positive displacement pumps. YILDIZ POMPA's positive displacement pumps are individually designed, configured and installed in Dresden according to customer specifications.

Examples of our suppliers for:

Shaft seals

EagleBurgmann, Crane, AES, Flowserve etc.

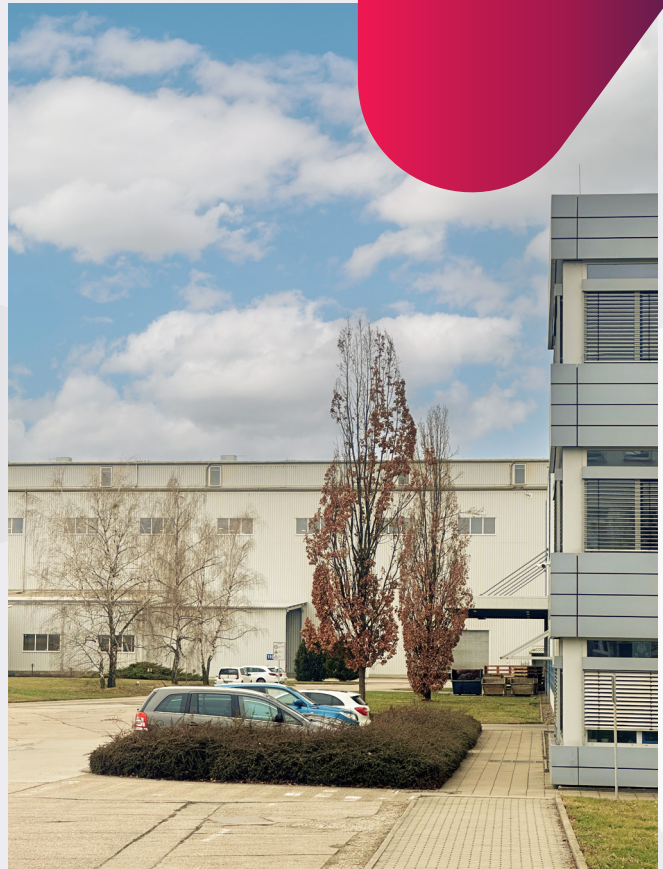
Drives

Getriebbau Nord, SEW, HEW, VEM, Siemens etc.

Couplings

KTR, Flender, Stemin etc.

Fluids



CHEMICAL INDUSTRY

Additives
Acetone
Gasoline
Bitumen
Dispersion
Epoxy resin
Urea-based adhesive
Synthetic resin
Adhesives
Pitch



FOOD

Cream
Honey
Yogurt
Jam
Molasses
Pastes
Vegetable oil
Sourdough
Chocolate
Sugar



PLANT ENGINEERING

Gasoline
Bitumen
Paints
Varnish
Heating Oil
Isocyanates
Synthetic Resin
Methanol
Polyol
Tar

INTERNAL GEAR PUMPS

The secret of the success of Yildiz internal gear pumps is the displacement that occurs when the liquid completely fills the space between the rotor and the gear of the idler gear. The crescent on the pump cover regulates the flow of the liquid moving towards the outlet opening.

The idler gear rotates on a shaft supported by the pump cover by carrying the liquid between its gear and the inner surface of the crescent.

The rotor gear moves between the pump casing and the outer surface of the crescent and is connected to the pump shaft.

Yildiz internal gear pumps are self-priming, pulsation-free and known for their quiet operation.

Experience reliable and efficient fluid transfer with Yildiz Pompa!



AREA OF APPLICATION

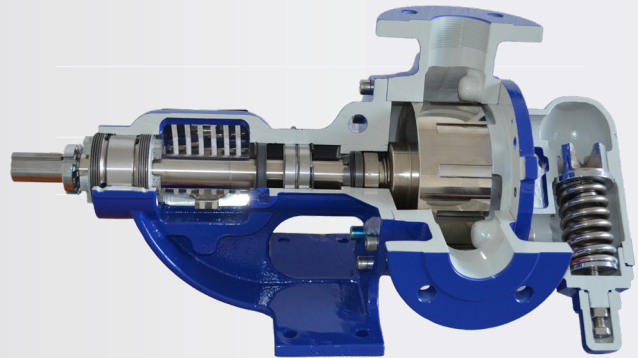
Transport of viscous products such as sugar syrup, chocolate, honey, molasses

Transport of viscous chemicals such as resins, polymers, paints, adhesives

Pumping of lubricants such as fuel, engine oil, hydraulic oil, grease

Pumping of products such as viscous paints, inks and coating materials

Transfer of additives, bitumen, silicone oils



MATERIALS

Casing:	Cast Iron, Ductile Iron, Cast Steel, AISI 316 -AISI 316L SS
Gears:	Ductile Iron, Cast Steel, AISI 316 -AISI 316L SS Bronze,
Bushing:	Carbon Graphite, Tungsten Carbide, Ball Bearing
Sealing:	Packing, single and double mechanical seal

INTERNAL GEAR PUMPS



Standard

pump code	connections mm	capacity m3/h	pressure bar	viscosity mPas	speed rpm	temperature °C	displacement l/rev
K3D	DN25	2	15	55.000	1.500	250	0,02
U2D	DN25	2	15	55.000	1.500	250	0,02
K1D	DN25	3	15	55.000	1.500	250	0,03
U1D	DN25	3	15	55.000	1.500	250	0,03
K3F	DN40	5	15	55.000	1.500	250	0,05
K1F	DN40	6	15	55.000	1.500	250	0,07
K4F	DN40	7	15	55.000	1.500	250	0,08
K3G	DN50	12	15	55.000	550	300	0,13
U4G	DN50	15	15	55.000	1.500	300	0,16
U3G	DN50	21	15	55.000	1.500	300	0,23
K1G	DN50	16	15	55.000	550	300	0,50
K1H	DN65	25	15	55.000	500	300	0,85
U5I	DN80	50	15	55.000	1000	300	0,85
K4H	DN65	32	15	55.000	420	300	1,25
K1I	DN80	32	15	55.000	420	300	1,25
K2I	DN80	55	15	55.000	400	300	2,20
K1J	DN100	55	15	55.000	400	300	2,20
U6J	DN100	75	15	55.000	400	300	3,65
K2J	DN100	108	15	55.000	350	300	5,10
K1K	DN125	135	10	55.000	350	300	6,40
K1L	DN150	135	10	55.000	350	300	6,60
K1M	DN200	200	10	55.000	230	250	14,50

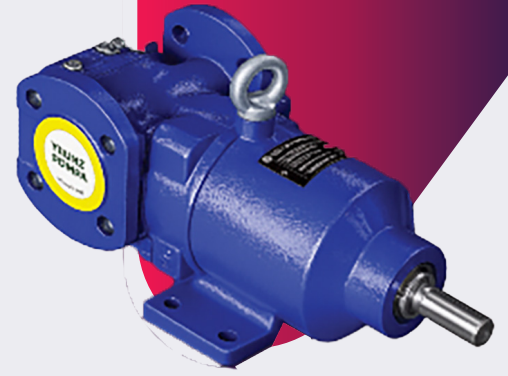
Food

pump code	connections mm	capacity m3/h	pressure bar	viscosity mPas	speed rpm	temperature °C	displacement l/rev
C4D	DN25	3	10	5.500	1.500	90	0,03
C4F	DN40	6	10	5.500	1.500	90	0,07
C6F	DN40	7	10	5.500	1.500	90	0,08
C4G	DN50	16	5	5.500	550	70	0,50
C4H	DN65	25	5	5.500	500	70	0,85
C6H	DN65	32	5	5.500	420	70	1,25
C4I	DN80	32	5	5.500	420	70	1,25

Block

pump code	connections mm	capacity m3/h	pressure bar	viscosity mPas	speed rpm	temperature °C	displacement l/rev
C1D	1"	0,4	5	16.500	200	70	0,03
C1F	DN40	0,4	5	16.500	100	70	0,07
C3F	DN40	0,5	5	16.500	100	70	0,08
C1G	DN50	2	5	16.500	100	70	0,50
C1H	DN65	5	5	16.500	100	70	0,85
C3H	DN65	6	5	16.500	100	70	1,00
C1I	DN80	6	5	16.500	100	70	1,00

INTERNAL GEAR PUMPS WITH MAGNETIC COUPLING



Internal gear pumps with magnetic couplings play a crucial role in the conveying of toxic, hazardous and water-polluting substances. These pumps convey liquids continuously and in a controlled manner according to the displacement principle, thus ensuring the safe transport of viscous media.

The magnetic coupling seals the pump chamber leak-free from the atmosphere. By preventing leaks, contamination of the conveyed fluid is also prevented, which is particularly important in the food, chemical, and pharmaceutical industries.

Thanks to the magnetic coupling and the associated elimination of mechanical sealing, maintenance and repair are simple, extending the pump's service life and reducing operating costs.

AREA OF APPLICATION

Safe transport of corrosive or hazardous chemicals

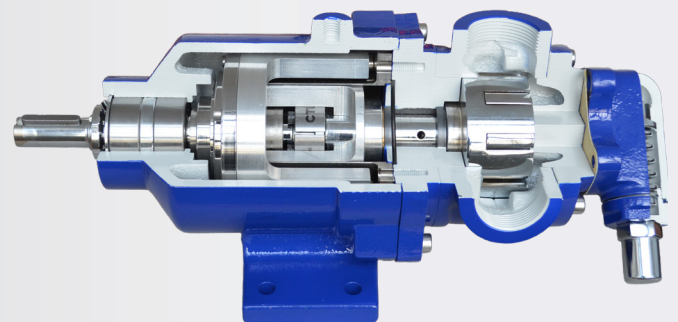
Transport of reactive substances such as acids, bases, solvents and isocyanates

Suitable for potentially explosive atmospheres (ATEX-certified types)

Used in processes requiring hygienic conditions

Safe transportation of liquid fuels such as diesel, gasoline and biodiesel

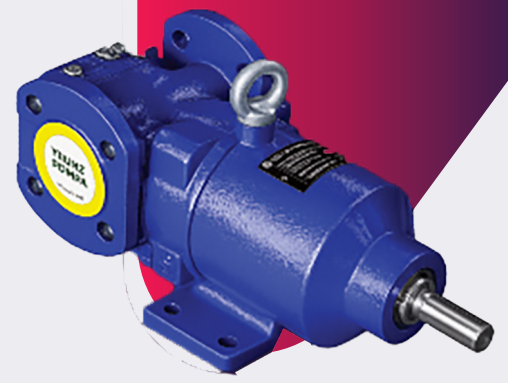
Leak-proof solution for liquids with a risk of evaporation



MATERIALS

Casing:	Cast Iron, Ductile Iron, Cast Steel, AISI 316 -AISI 316L SS
Gears:	Cast Iron, Ductile Iron, Cast Steel, AISI 316 -AISI 316L SS
Bushing:	Bronze, Graphite, Tungsten Carbide
Sealing:	Magnetic Coupling

INTERNAL GEAR PUMPS WITH MAGNETIC COUPLING

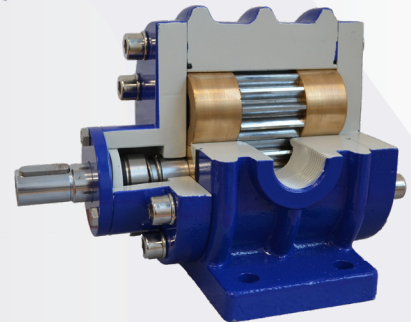
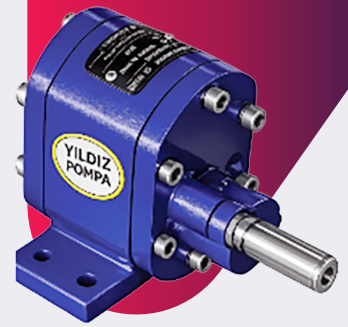
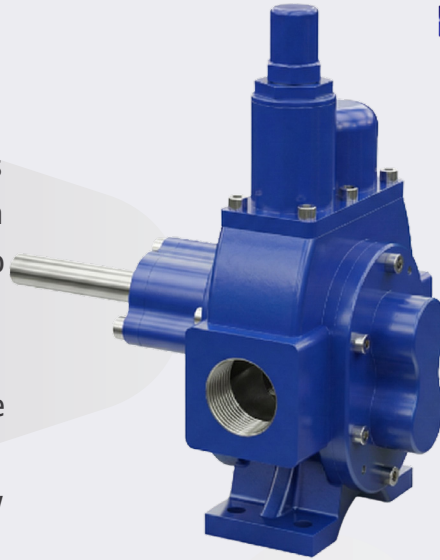


pump code	connections inch	capacity m3/h	pressure bar	viscosity mPas	speed rpm	temperature °C	displacement l/rev
P4D	1"	2	12	20.000	1.400	250	0,02
P2D	1"	3	12	20.000	1.400	250	0,03
P4F	1½"	5	12	20.000	1.400	250	0,05
P2F	1½"	6	12	20.000	1.400	250	0,07
P3F	1½"	7	12	20.000	1.400	250	0,08
P4G	2"	12	12	20.000	550	250	0,13
P2G	2"	16	12	20.000	550	250	0,50
P2H	2½"	25	12	20.000	500	250	0,85
P3H	2½"	32	12	20.000	420	250	1,25
P2I	3"	32	12	20.000	420	250	1,25
P5I	3"	55	12	20.000	420	250	2,20
P2J	4"	55	12	20.000	400	250	2,20



EXTERNAL GEAR PUMPS MODULAR

External gear pumps operate effectively on the gear pump principle. The pump shaft transmits the motor's rotary motion to the gear, which rotates on the shaft in the opposite direction to the gear's rotation. As the gears separate, the space between them fills with liquid. This liquid is transported to the outlet by the gears' rotation and then forced into the discharge channel by the gears' re-engaging. These pumps enable the rapid transfer of corrosive and low-volume fluids. Thanks to their compact design, they offer high reliability and are ideally suited for a wide range of applications. Experience the advantages of reliable and efficient fluid transfer with Yildiz Pompa!



MATERIALS

Casing:

Cast Iron, Ductile Iron, Cast Steel,
AISI 316 - AISI 316L SS

Gears:

Cast Steel, AISI 316 - AISI 316L SS

Bushing:

Bronze, Carbon Graphite, Tungsten
Carbide

Sealing:

Packing, single mechanical seal

AREA OF APPLICATION

Continuous oil transfer in lubrication systems and cooling circuits

Controlled transfer of chemical liquids (acids, bases, solvents)

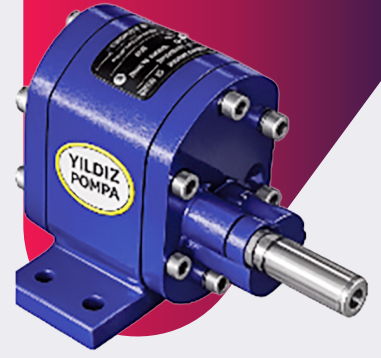
Transfer of liquid fuels (diesel, gasoline and biodiesel)

Transfer of resins, solvents, containing pigments

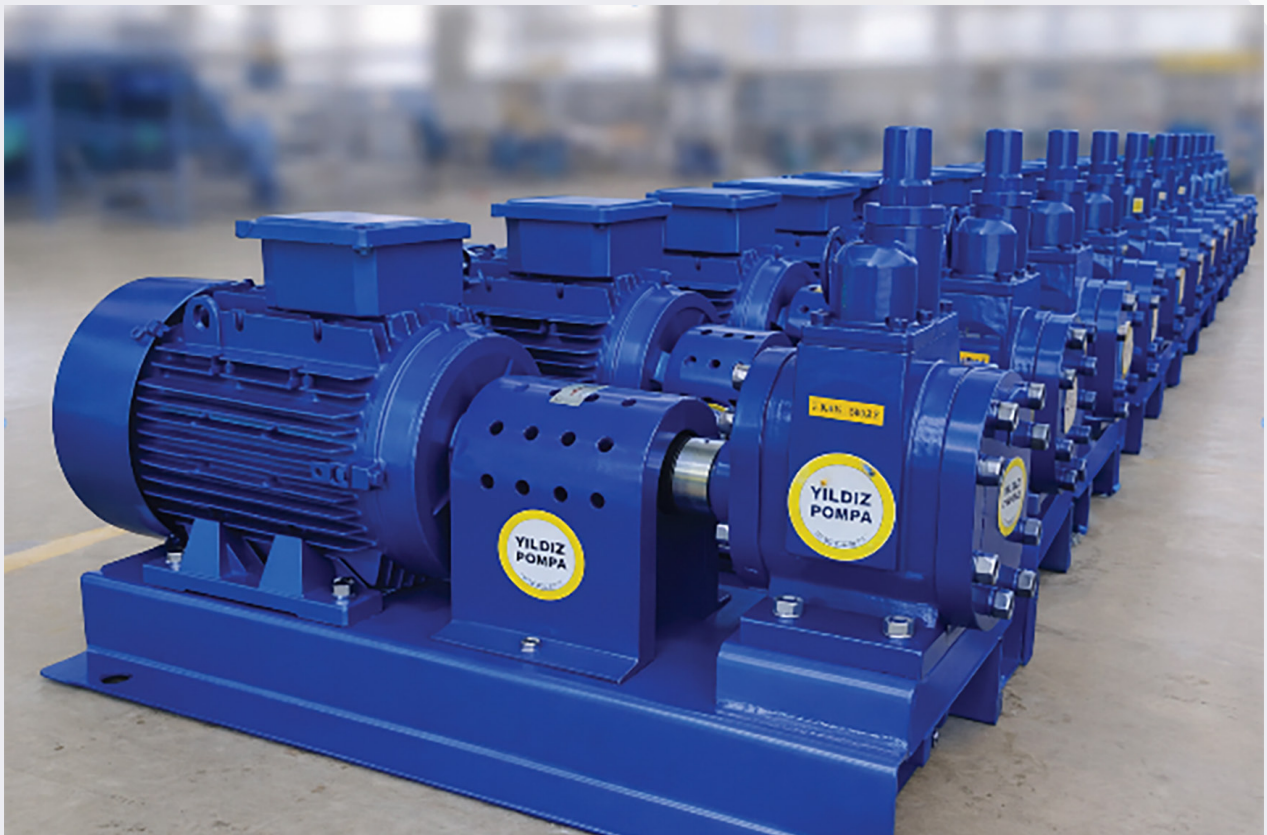
Transport of mineral oils or high-viscosity liquids

Dispensing of cosmetic products (creams and lotions)

EXTERNAL GEAR PUMPS MODULAR

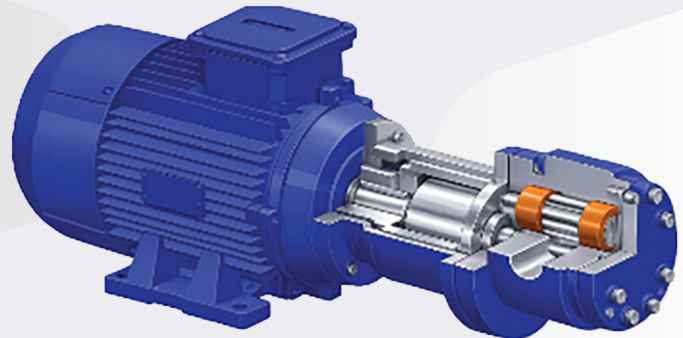


pump code	connections inch	capacity m3/h	pressure bar	viscosity mPas	speed rpm	temperature °C	displacement l/rev
H4A	3/8"	1	15	165	1.500	200	0,01
H4B	1/2"	1	15	165	1.500	200	0,01
H2C	3/4"	1	30	550	1.500	200	0,02
H2D	1"	3	30	550	1.500	200	0,03
H3D	1"	4	15	550	1.500	200	0,03
H4D	1"	3	12	550	1.500	200	0,03
H4G	1½"	7	12	550	1.500	200	0,08
H2F	1½"	8	30	550	1.500	200	0,09
H3F	1½"	11	15	550	1.500	200	0,11



EXTERNAL GEAR PUMPS MODULAR WITH MAGNETIC COUPLING

External gear pumps with magnetic coupling operate with high efficiency based on the modular gear pump principle. They ensure the safe transport of low-viscosity liquids. Thanks to the positive displacement principle, the flow rate is pulsation-free. The magnetic coupling seals between the pump motor and the gear system, minimizing environmental impact and safety risks by preventing liquid losses. The design prevents leakage and liquid contamination, which is crucial for the food, chemical and pharmaceutical industries. Modular gear pumps with magnetic coupling can be operated at different speeds and pressures depending on the liquid viscosity – ideal for applications requiring precise flow control. The absence of a mechanical connection simplifies maintenance and repair, extends the pump's service life and reduces operating costs. The pump offers energy efficiency and delivers high performance with low energy consumption. Discover the advantages of efficient and sustainable liquid transfer with Yildiz Pompa!



AREA OF APPLICATION

Safe transport of corrosive or hazardous chemicals

Reactive substances such as acids, bases, solvents and isocyanates

Suitable for potentially explosive atmospheres (ATEX-certified types)

Used in processes requiring hygienic conditions

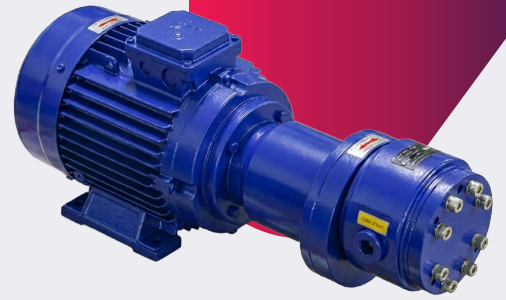
Safe transport of liquid fuels such as diesel, gasoline and biodiesel

Leak-proof solution for liquids with a risk of evaporation

MATERIALS

Casing :	Cast Iron, Ductile Iron, Cast Steel, AISI 316 -AISI 316L SS
Gears:	Steel, AISI 316 - AISI 316L SS
Bushing :	Bronze, Carbon Graphite, Tungsten Carbide
Sealing:	Magnetic Coupling

EXTERNAL GEAR PUMPS MODULAR WITH MAGNETIC COUPLING



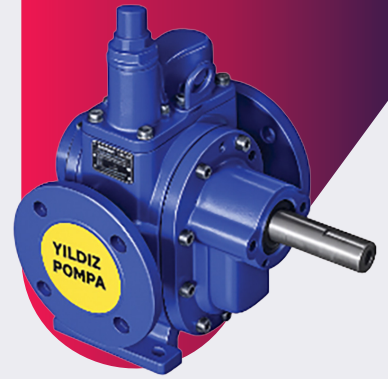
Pump code	connections inch	capacity m3/h	pressure bar	viscosity mPas	speed rpm	temperature °C	displacement l/rev
M6D	1"	3	30	550	1.500	100	0,03
M7D	1"	3	15	550	1.500	100	0,03
M8F	1½"	4	30	550	1.500	100	0,04
M6F	1½"	8	30	550	1.500	100	0,09
M7F	1½"	11	15	550	1.500	100	0,11



EXTERNAL GEAR PUMPS HELICAL

Helical gear pumps operate with high efficiency based on the gear pump principle. The pump shaft transmits the rotary motion generated by the motor to the opposite, counter-rotating gear. As the gears diverge, fluid collects between them. This fluid is then transported to the outlet area by the gears' rotation and when the gears mesh, is forced into the outlet channel. Depending on the fluid's viscosity, pressures of up to 20 bar can be achieved.

Thanks to its gear design, it is ideally suited for applications where quiet operation and a continuous flow are essential. Experience the advantages of silent and efficient liquid transfer with Yildiz Pompa!



MATERIALS

Casing:

Cast Iron, Ductile Iron, Cast Steel
AISI 316 - AISI 316L SS

Bushing:

Bronze, Carbon Graphite

Sealing:

Packing, single and double mechanical seal

AREA OF APPLICATION

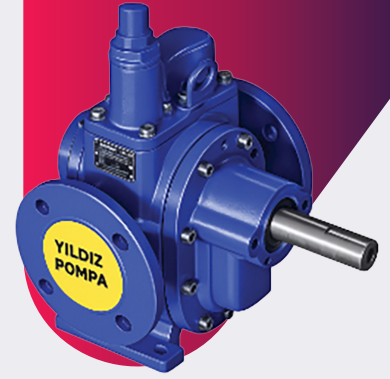
Transport of motor oil, gasoline, liquefied petroleum gas and diesel fuels

In tank facilities and transfer stations

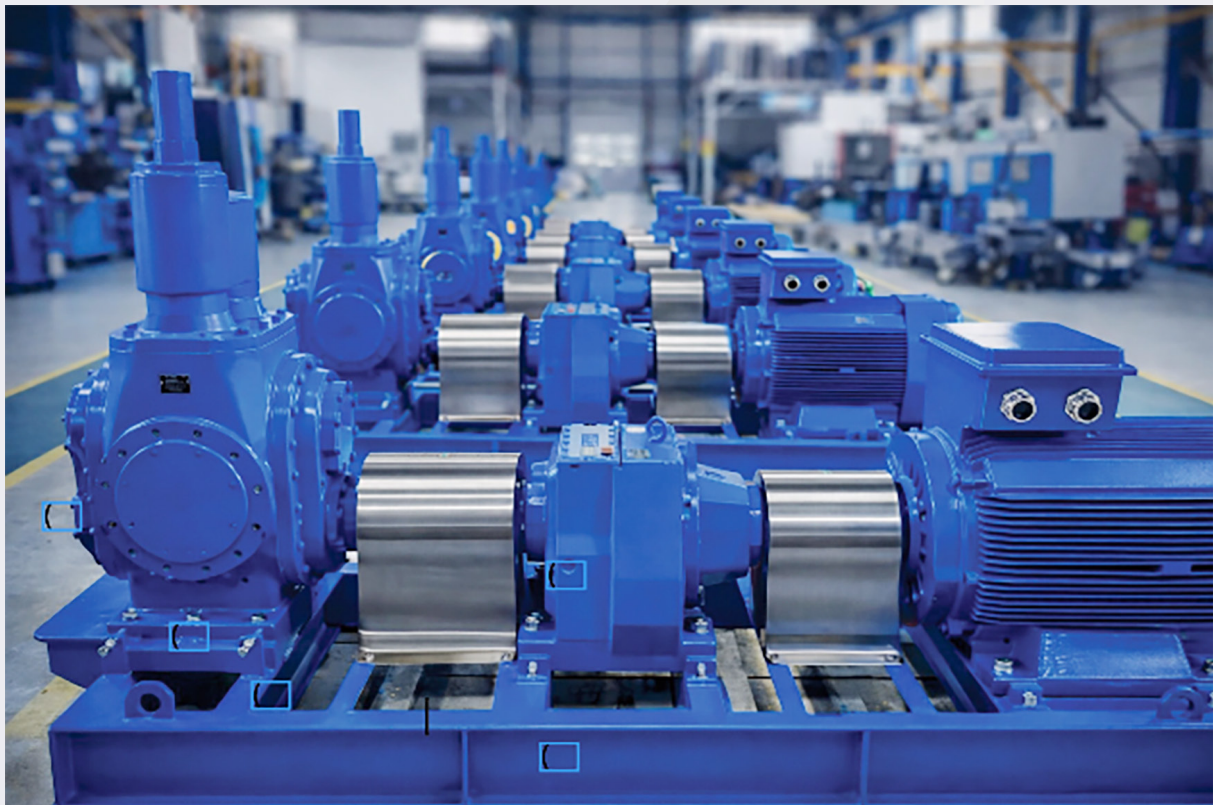
Safe transport of chemical liquids such as acids, bases and solvents

Conveying of highly viscous liquids such as bitumen, molasses, sugar syrup, cream

EXTERNAL GEAR PUMPS HELICAL



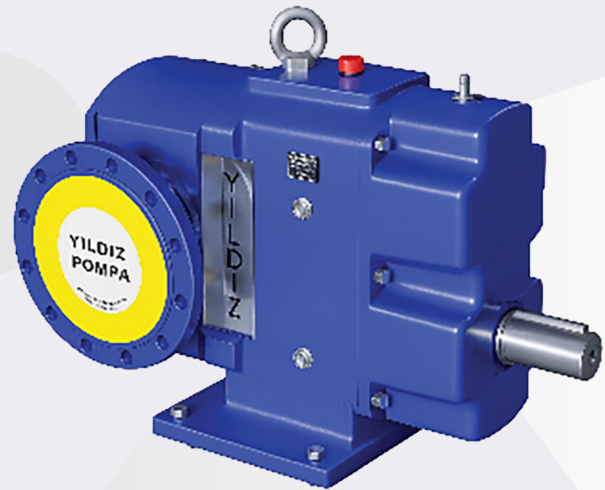
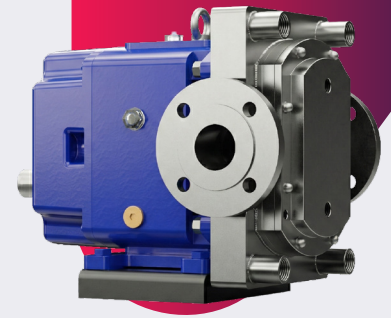
Typ	Anschluß zoll	Fördermenge m3/h	Förderdruck bar	Viskosität mPas	Drehzahl U/min	Temperatur °C	Verdrängung l/rev
H1G	2"	20	15	55.000	1.500	200	0,25
H5H	2½"	27	15	55.000	450	350	1,00
H1H	2½"	38	15	55.000	450	350	1,40
H1I	3"	38	15	55.000	450	350	1,40
H1J	4"	76	15	55.000	450	350	2,80
H1L	6"	175	15	55.000	500	350	6,00
H1M	8"	350	15	55.000	500	350	12,00
H1N	10"	350	15	55.000	500	350	12,00



LOBE PUMPS

Lobe pumps are driven by gears. These gears enable the lobes to rotate within the casing on parallel shafts without the lobes touching each other or the casing. The pump is driven by transferring the rotary motion received by the reduction gear in the opposite direction to the control gear. Thanks to their hygienic materials and construction, lobe pumps reliably and gently transfer liquids.

Depending on the viscosity, pressures of up to 12 bar can be achieved. Choose our lobe pumps from Yildiz Pompa – for reliable and efficient liquid handling.



MATERIALS

Casing:

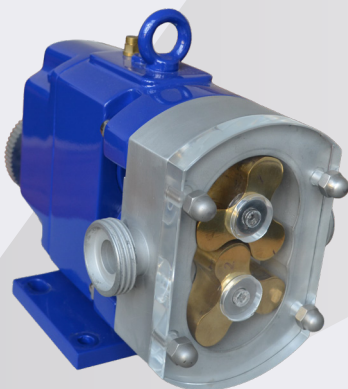
Cast Steel, AISI 316 - AISI 316L

Lobes:

Cast Steel, AISI 316 - AISI 316L

Sealing:

Packing,
single mechanical seal



AREA OF APPLICATION

Transport of delicate and viscous foods such as yogurt, milk, cream, honey, molasses and jam

Damage-free pumping of products containing solid particles (yogurt with fruit pieces, jam, etc.)

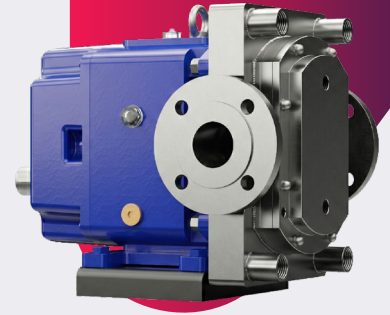
Hygienic pumping of viscous products such as ointments, creams, lotions, shampoos and toothpaste

Pumping of viscous and sticky chemicals such as resins, polymers, paints and varnishes

Transport of highly viscous products such as pulp, starch solutions, coating materials, paints and varnishes

Transport of protein-based liquids, yeast suspensions and biomass-containing liquids

LOBE PUMPS



pump code	connections mm	capacity m3/h	pressure bar	viscosity mPas	speed rpm	temperature °C	displacement l/rev
L11110 - L11210 - L11310 - L11410	DN25 - DN40	4	10	20.000	1.000	150	0,06
L11120 - L11220 - L11320 - L11420	DN25 - DN40	7	10	20.000	1.000	150	0,12
L11125 - L11225 - L11325 - L11425	DN40 - DN50	8	10	20.000	750	150	0,18
L11130 - L11230 - L11330 - L11430	DN40 - DN50	10	8	20.000	750	150	0,23
L12135 - L12235 - L12335 - L12435	DN40 - DN50 - DN65	11	8	20.000	500	150	0,35
L12140 - L12240 - L12340 - L12440	DN40 - DN50 - DN65	15	8	20.000	500	150	0,50
L13145 - L13245 - L13345 - L13445	DN50 - DN65	19	8	20.000	500	150	0,62
L13150 - L13250 - L13350 - L13450	DN65 - DN80	27	7	20.000	500	150	0,90
L14155 - L14255 - L14355 - L14455	DN65 - DN80	39	8	55.000	500	150	1,30
L14160 - L14260 - L14360 - L14460	DN80 - DN100	54	7	55.000	500	150	1,80
L15165 - L15265 - L15365 - L15465	DN100	81	7	55.000	500	150	2,85
L15170 - L15270 - L15370 - L15470	DN150	100	7	55.000	500	150	3,55
L17175 - L17275 - L17375 - L17475	DN200 - DN250	132	7	55.000	320	150	7,00
L17180 - L17280 - L17380 - L17480	DN200 - DN250	185	7	55.000	320	150	10,00

Applications for lobe pumps

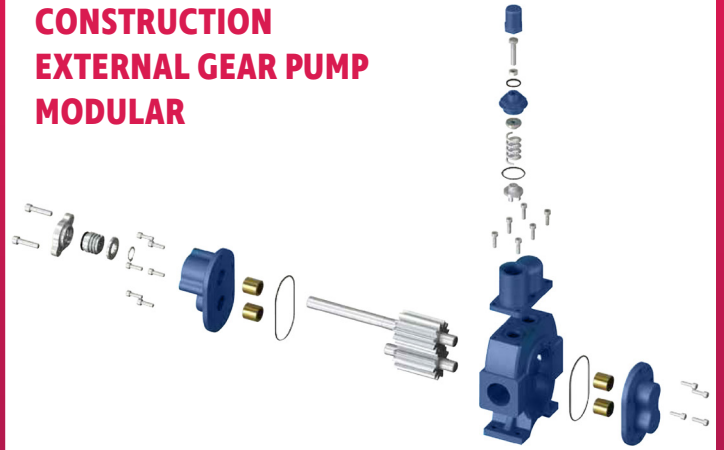
- Hygienic design
- Low shear forces, advantageous for sensitive products
- Reverse operation possible
- Short-term dry running possible
- Suitable for liquids containing solids without damage



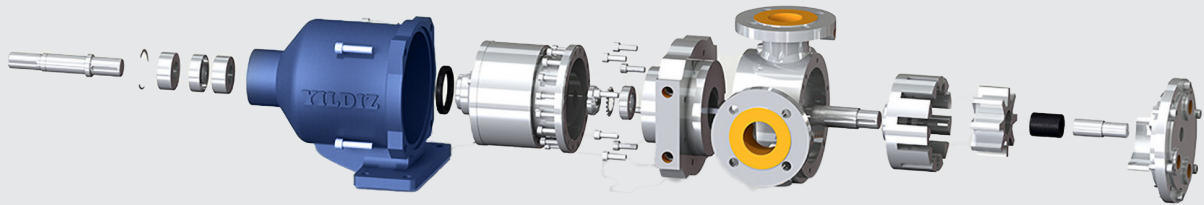
CONSTRUCTION INTERNAL GEAR PUMP



CONSTRUCTION EXTERNAL GEAR PUMP MODULAR



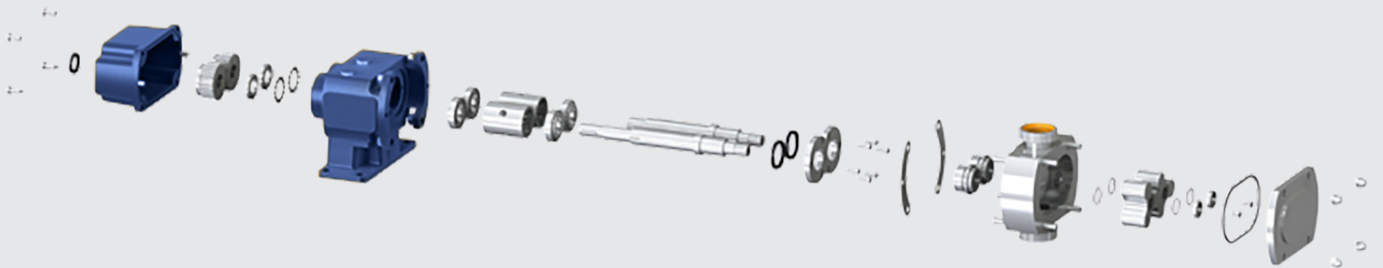
CONSTRUCTION EXTERNAL GEAR PUMPS WITH MAGNETIC COUPLING



CONSTRUCTION EXTERNAL GEAR PUMP HELICAL



CONSTRUCTION LOBE PUMPS



REFERENCES





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