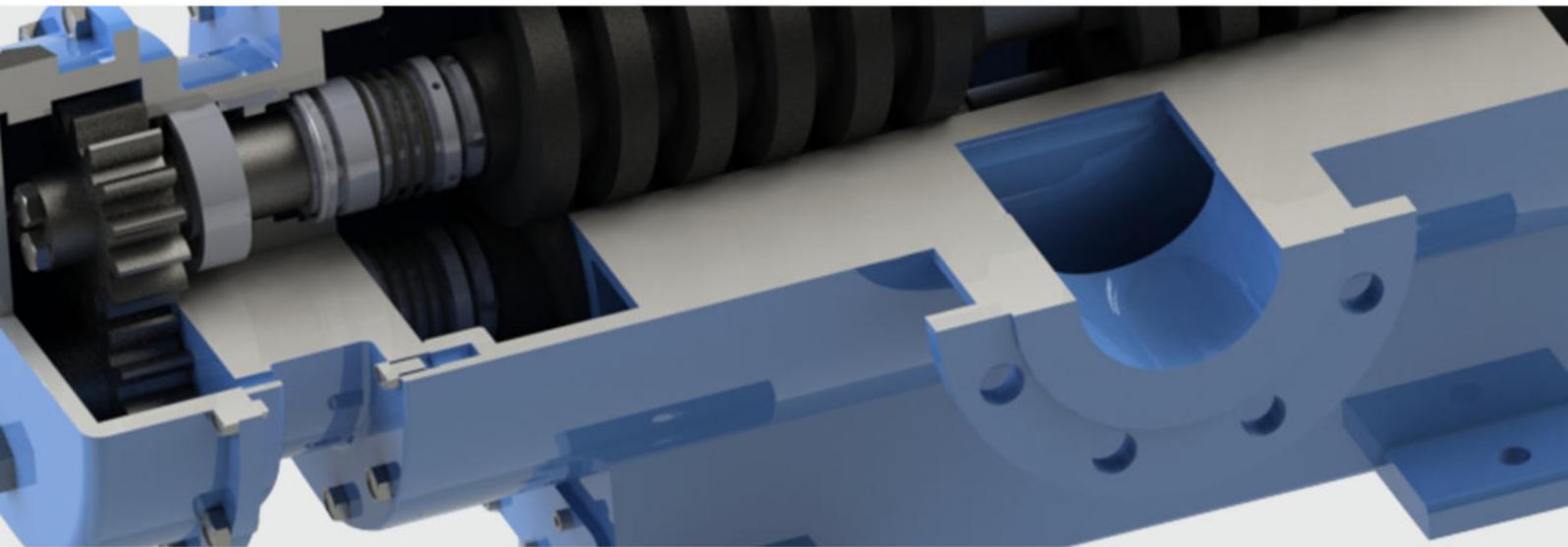




VESTAPOMP
Makes life comfortable

VESTA



Industrial Transfer Pumps

w w w . v e s t a p o m p . c o m

About Us

We have been designing and producing various models of pumps to be used in different fields of industry. Experienced in product selection and production, our staff renders the services which meet the requirements of the industrial enterprises with after sales support and services which maintain our long term business relationships.

Since various fluids used in many sectors present different properties such as durability, viscosity, radiance, temperature, pressure, grains, contamination, abrasion, we have designed customized pumps according to each fluid/viscose type and developed and diversified our product range in line with your requests and requirements. We produce Diaphragm Pumps, Hot Oil Pumps, Gear Pumps, Twin Screw Pumps, Centrifugal Pumps, Vortex Pumps. The pumps we produce with our long years of experience are used in food, textile, paint, cleaning, energy, chemistry sectors.

Our company is a pioneer in the production of diaphragm transfer pumps with VESTAPOMP brand. VESTAPOMP products are used in European Union and Middle East countries and CIS countries, and the number of countries that choose us is also increasing year by year. Whereas, this is our quality certificate and one of the most significant factors which also makes us strong, reliable and energetic in the sector.

You may consult us regarding your new pump purchases in order to contribute your company's production quality or request our assistance and support in providing maintenance and increasing efficiency of your pumps. In order for you to safely transfer your fluids through high quality pumps, we are always by your side with our competent and experienced staff.

Our aim is to provide quality products and services to our customers.

Our Product Portfolio

- Diaphragm Pump
 - . Metallic Body Pumps
 - . Plastic Body Pumps
 - . Hygenic Pumps
 - . Electromechanical Diaphragm Pumps
 - . Powder Pumps
 - . High Pressure Diaphragm Pumps
- External Gear Pumps
 - . Monoblock Gear Pumps
 - . High Pressure Gear Pump
- Twin Screw Pumps
- Centrifugal Pumps
 - . End Suction Centrifugal Pumps
 - . Monoblock Centrifugal Pumps
 - . Inline Centrifugal Pumps
- Vortex Pumps
- Regenerative Pumps
- Armatures



Methalic Body Pumps

Technical Specifications

Model	(lt/min)	Inlet-Outlet (inch)	Pressure (max. bar)	Altitude (max. m)	Depth (m)	Temperature (°C)	Inlet	Permeability (mm)	Weight (kg)
VP 05 (3/4")	55	3/4"	7	70	6	-18 ~ +100	1/4"	3	4.9
VP 10 (1")	150	1"	7	70	6	-18 ~ +100	1/2"	4	9.0
VP 15 (1 1/2")	400	1 1/2"	7	70	6	-18 ~ +100	3/4"	6	25.0
VP 20 (2")	560	2"	7	70	6	-18 ~ +100	3/4"	6	32.0
VP 30 (3")	890	3"	7	70	6	-18 ~ +100	3/4"	8	51.0



VP05 Metallic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 55 lt./min
Pump Inlet - Outlet	: 3/4"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18 °C/+100 °C
Air Inlet	: 1/4"
Particle Permeability	: 3mm.
Weight	: 4.2 - 4.9 kg.



Air operated diaphragm pumps also operate without any problem in the cases when there is no liquid during the transfer. Shortly, the general pump problem, dry working does not make a problem for an air operated diaphragm pump. Also, pump has the feature to discharge pressured air without damaging its elastomer parts. Pumps having 3/4" inlet, outlet have Aluminium and Plastic (Polypropylene) casings and they have more utilization areas in Packaging, Dying, Food, Chemistry, Leather, Textile and Paper sectors.

VP10 Metallic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 150 lt./min
Pump Inlet - Outlet	: 1"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18 °C/+100 °C
Air Inlet	: 1/2"
Particle Permeability	: 4 mm.
Weight	: 8 - 9 kg.



Air operated diaphragm pumps is completely ex-proof and provides a safe working environment since electric motor is not used. Pumps having 1" inlet, outlet have Aluminium, Cast Iron, Stainless Steel and Plastic casings and they have more utilization areas in Dying, Chemistry, Leather, Textile, Shoe Sole Manufacturing Enamel, Food, Forestry Products and Paper sectors.

Methalic Body Pumps

VP15 Metallic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 400 lt./min
Pump Inlet - Outlet	: 1½"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18°C/+100°C
Air Inlet	: 3/4"
Particle Permeability	: 6mm.
Weight	: 20.5 - 25 kg.



■ Air operated diaphragm pumps have multi-purpose usage features and they have the ability to transfer liquids having particules in high flow rates. Pumps having 1½" inlet, outlet have Aluminium, Cast Iron, Stainless Steel And Plastic (Polypropylene) casings and they have more utilization areas Dying, Treatment, Casting Industry, Rubber, Cosmetics, Paper sectors. The selection of these pumps having Neoprene, Buna-n EPDM, Vinton, Teflon eyastomers compatible with fluid provide them to have long life.

VP20 Metallic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 560 lt./min
Pump Inlet - Outlet	: 2"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18°C/+100°C
Air Inlet	: 3/4"
Particle Permeability	: 6 mm.
Weight	: 30 - 32 kg.



■ Depending on the materials that are used in an air operated diaphragm pump, it can give performance of 6 meters depth suction and 70 meters height discharge. Pumps having 2" inlet, outlet have Aluminium, Cast Iron, Stainless Steel and Plastic (Polypropylene) casings and they have more utilization areas in Treatment, Dying, White Goods, Casting Industry, Ship, Construction, Rubber, Cosmetics, Mining and Ceramic sectors.

VP30 Metallic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 890 lt./min
Pump Inlet - Outlet	: 3"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18°C/+100°C
Air Inlet	: 3/4"
Particle Permeability	: 6 mm.
Weight	: 49 - 51 kg.



■ Because of its construction design, an air operated diaphragm pump is able to transfer the high-viscosity liquids which are corrosive and have particules ($\phi=8\text{mm}$). Pumps having 3" inlet, outlet have Aluminium, Cast Iron, Stainless Steel and Plastic (Polypropylene) casings and they have more utilization areas Treatment, Construction, Mining and Ceramic sectors.

Plastic Body Pumps

Technical Specifications

Model	(lt/min)	Input - Output (inch)	Pressure (max. bar)	Altitude(max. m)	Depth (m)	Temperature (°C)	Inlet	Permeability (mm)	Weight (kg)
VP 02 (1/4")	16	1/4"	7	70	6	0 ~ +100	1/4"	1	1.5
VP 05 (3/4")	55	3/4"	7	70	6	0 ~ +100	1/4"	3	4.2
VP 10 (1")	150	1"	7	70	6	0 ~ +100	1/2"	4	8.0
VP 15 (1 1/2")	400	1 1/2"	7	70	6	0 ~ +100	3/4"	6	20.5
VP 20 (2")	560	2"	7	70	6	-18 ~ +100	3/4"	6	30.0
VP 30 (3")	890	3"	7	70	6	-18 ~ +100	3/4"	8	49



VP02 Plastic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 15 lt./min
Pump Inlet - Outlet	: 1/4"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 1m.
Operation Temperature	: -18 °C/+100 °C
Air Inlet	: 1/4"
Particle Permeability	: 1mm.
Weight	: 1,8 kg.



The smallest member of **VP** family **VP02** is very light and a good alternative to electrical barrel pumps. Its light weight and easy to carry feature are good advantages of **VP02** to use it to transfer liquids from barrels. It has only polypropylene casing and is used in chemical industry, ceramic industry and some others.

VP05 Plastic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 55 lt./min
Pump Inlet - Outlet	: 3/4"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18 °C/+100 °C
Air Inlet	: 1/4"
Particle Permeability	: 3mm.
Weight	: 4.2 - 4.9 kg.



Air operated diaphragm pumps also operate without any problem in the cases when there is no liquid during the transfer. Shortly, the general pump problem, dry working does not make a problem for an air operated diaphragm pump. Also, pump has the feature to discharge pressured air without damaging its elastomer parts. Pumps having 3/4" inlet, outlet have Aluminium and Plastic (Polypropylene) casings and they have more utilization areas in Packaging, Dying, Food, Chemistry, Leather, Textile and Paper sectors.

Plastic Body Pumps

VP10 Plastic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 150 lt./min
Pump Inlet - Outlet	: 1"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18°C/+100°C
Air Inlet	: 1/2"
Particle Permeability	: 4 mm.
Weight	: 8 - 9 kg.



■ Air operated diaphragm pumps is completely ex-proof and provides a safe working environment since electric motor is not used. Pumps having 1" inlet, outlet have Aluminium, Cast Iron, Stainless Steel and Plastic casings and they have more utilization areas in Dying, Chemistry, Leather, Textile, Shoe Sole Manufacturing Enamel, Food, Forestry Products and Paper sectors.

VP15 Plastic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 400 lt./min
Pump Inlet - Outlet	: 1½"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18°C/+100°C
Air Inlet	: 3/4"
Particle Permeability	: 6mm.
Weight	: 20.5 - 25 kg.



■ Air operated diaphragm pumps have multi-purpose usage features and they have the ability to transfer liquids having particules in high flow rates. Pumps having 1½" inlet, outlet have Aluminium, Cast Iron, Stainless Steel And Plastic (Polypropylene) casings and they have more utilization areas Dying, Treatment, Casting Industry, Rubber, Cosmetics, Paper sectors. The selection of these pumps having Neoprene, Buna-n EPDM, Vinton, Teflon eyastomers compatible with fluid provide them to have long life.

VP20 Plastic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 560 lt./min
Pump Inlet - Outlet	: 2"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18°C/+100°C
Air Inlet	: 3/4"
Particle Permeability	: 6 mm.
Weight	: 30 - 32 kg.



■ Depending on the materials that are used in an air operated diaphragm pump, it can give performance of 6 meters depth suction and 70 meters height discharge. Pumps having 2" inlet, outlet have Aluminium, Cast Iron, Stainless Steel and Plastic (Polypropylene) casings and they have more utilization areas in Treatment, Dying, White Goods, Casting Industry, Ship, Construction, Rubber, Cosmetics, Mining and Ceramic sectors.

Plastic Body Pumps

VP30 Plastic Body Pumps

TECHNICAL FEATURES

Flow Rate	: 890 lt./min
Pump Inlet - Outlet	: 3"
Operation Pressure (Max.)	: 7 bar
Delivery Height (Max.)	: 70 mSS
Suction Depth	: 6m.
Operation Temperature	: -18°C/+100°C
Air Inlet	: 3/4"
Particle Permeability	: 6 mm.
Weight	: 49 - 51 kg.

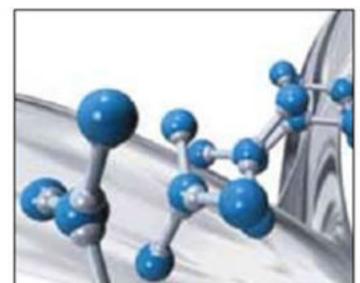


Because of its construction design, an air operated diaphragm pump is able to transfer the high-viscosity liquids which are corrosive and have particules ($\varphi=8\text{mm}$). Pumps having 3" inlet, outlet have Aluminium, Cast Iron, Stainless Steel and Plastic (Polypropylene) casings and they have more utilization areas Treatment, Construction, Mining and Ceramic sectors.

Hygenic Pumps

Technical Specifications

Model	Flow (lt/min)	Inlet-Outlet (inch)	Pressure (max. bar)	Altitude (max. m)	Depth (m)	Temperature (°C)	Air Inlet	Permeability (mm)	Weight (kg)
VP 05	55	3/4"	7	70	6	-18 ~ +100	1/4"	3	6.5
VP 10	150	1"	7	70	6	-18 ~ +100	1/2"	4	12.0
VP 15	400	1 1/2"	7	70	6	-18 ~ +100	3/4"	6	26.0
VP 20	560	2"	7	70	6	-18 ~ +100	3/4"	6	31.0
VP 30	890	3"	7	70	6	-18 ~ +100	3/4"	8	65.0



Hygenic Pumps

VP10 Hygenic Pump

Capacity	:150 lt/min
Intake/Discharge siz	:1"
Main Body	:Polypropylene-Polypropylene Black-PVDF
Diaphragms	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Ball Valves	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Ball Seats	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Air Inlet Size	:1/2"
Solids-Handling	:4mm
Suction Depth	:6m
Operating Pressure Max.	:7 bar



VP15 Hygenic Pump

Capacity	:400 lt/min
Intake/Discharge siz	:1 1/2"
Main Body	:Polypropylene-Polypropylene Black-PVDF
Diaphragms	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Ball Valves	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Ball Seats	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Air Inlet Size	:3/4"
Solids-Handling	:6mm
Suction Depth	:6m
Operating Pressure Max.	:7 bar



VP20 Hygenic Pump

Capacity	:560 lt/min
Intake/Discharge siz	:3/4"
Main Body	:Polypropylene-Polypropylene Black-PVDF
Diaphragms	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Ball Valves	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Ball Seats	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Air Inlet Size	:3/4"
Solids-Handling	:6mm
Suction Depth	:6m
Operating Pressure Max.	:7 bar



VP30 Hygenic Pump

Capacity	:890 lt/min
Intake/Discharge siz	:3"
Main Body	:Polypropylene Black-PVDF
Diaphragms	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Ball Valves	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Ball Seats	:Santoprene-Neoprene-Buna'N-EPDM-Teflon-Viton
Air Inlet Size	:3/4"
Solids-Handling	:8mm
Suction Depth	:6m
Operating Pressure Max.	:7 bar



Electromechanical Diaphragm Pumps

VP05 Electromechanical Diaphragm Pumps

MAX. OPERATION PRESSURE (bar)	: 2
VOLTAGE (Volt)	: 380/220 Volt 50 Hz
ENERGY CONSUMPTION (Kw)	: 0,37
DISPLACEMENT/STROKE (Lt/Stroke)	: 0,2
MAX. DISCHARGE HEAD (Mss)	: 20
MAX. SUCTION HEAD (Meter)	: 4
SOLIDS-HANDLING (mm)	: 3
MAX. CAPACITY (m3/H)	: 1,48
RPM	: 60
MAX. LIQUID TEMPERATURE (°C)	: 100
INLET - OUTLET (Inch)	: 3/4



VP10 Electromechanical Diaphragm Pump

MAX. OPERATION PRESSURE (bar)	: 2
VOLTAGE (Volt)	: 380/220 Volt 50 Hz
ENERGY CONSUMPTION (Kw)	: 0,55
DISPLACEMENT/STROKE (Lt/Stroke)	: 0,55
MAX. DISCHARGE HEAD (Mss)	: 20
MAX. SUCTION HEAD (Meter)	: 4
SOLIDS-HANDLING (mm)	: 4
MAX. CAPACITY (m3/H)	: 4
RPM	: 60
MAX. LIQUID TEMPERATURE (°C)	: 100
INLET - OUTLET (Inch)	: 1



VP15 Electromechanical Diaphragm Pump

MAX. OPERATION PRESSURE (bar)	: 4
VOLTAGE (Volt)	: 380/220 Volt 50 Hz
ENERGY CONSUMPTION (Kw)	: 4
DISPLACEMENT/STROKE (Lt/Stroke)	: 1,47
MAX. DISCHARGE HEAD (Mss)	: 40
MAX. SUCTION HEAD (Meter)	: 5
SOLIDS-HANDLING (mm)	: 6
MAX. CAPACITY (m3/H)	: 13,8
RPM	: 78
MAX. LIQUID TEMPERATURE (°C)	: 100
INLET - OUTLET (Inch)	: 1½



VP20 Electromechanical Diaphragm Pump

MAX. OPERATION PRESSURE (bar)	: 4
VOLTAGE (Volt)	: 380/220 Volt 50 Hz
ENERGY CONSUMPTION (Kw)	: 4
DISPLACEMENT/STROKE (Lt/Stroke)	: 1,47
MAX. DISCHARGE HEAD (Mss)	: 40
MAX. SUCTION HEAD (Meter)	: 5
SOLIDS-HANDLING (mm)	: 6
MAX. CAPACITY (m3/H)	: 13,8
RPM	: 78
MAX. LIQUID TEMPERATURE (°C)	: 100
INLET - OUTLET (Inch)	: 1½



Electromechanical Diaphragm Pumps

VP30 Electromechanical Diaphragm Pumps

MAX. OPERATION PRESSURE (bar)	: 4
VOLTAGE (Volt)	: 380/220 Volt 50 Hz
ENERGY CONSUMPTION (Kw)	: 7,5
DISPLACEMENT/STROKE (Lt/Stroke)	: 3,65
MAX. DISCHARGE HEAD (Mss)	: 40
MAX. SUCTION HEAD (Meter)	: 5
SOLIDS-HANDLING (mm)	: 8
MAX. CAPACITY (m3/H)	: 34,2
RPM	: 78
MAX. LIQUID TEMPERATURE (°C)	: 100
INLET - OUTLET (Inch)	: 3

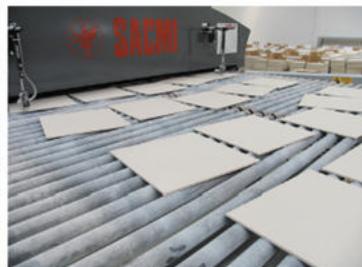


Powder Pumps

Vestapump keeps huge-pump air diaphragm powder pumps in product range for pump powder transfer as a solution. These pumps can easily absorb the powder by working principle with compressed air and transfer it in 7 bar pressure. Powder pumps both run in high efficiency and do not induce raising dust from atmosphere. Huge powder pump is suitable for the powders not adhering to the wall that has a definite specific weight.

- Plaster
- Starch
- Bentonit
- Cement
- Silicon

Those are some suitable examples for transferring



High-Pressure Pumps

Power quantity (compressed air) in which the diaphragm pumps have been used is proportional to the operating time. Power loss has not been existed.

During pumping, when the area being discharged has been dried, they can run in open circuit. While the pump is running in no-load (idling), it is not heated and due to friction any abrasion is not occurred. During the transfer of fluid, when any contraction, blockage or enclosure is occurred, it slows down or stops without causing any failure or energy consumption. When the outlet is opened, the pumping process restarts. Flow control varying from 16 litres to 890 litres in a minute is used if required. In order to increase the capacity, a few diaphragm pumps can be connected to outlet. Ball valve diaphragm pumps can pump viscosity materials like asphalt. Ball valves provide the solid particles in small size to transmit. However, in cases where the solid particles are larger, clack valve diaphragm pumps are used. They have no engine or electrical connections. They are secured against explosive. Overheating does not occur due to any friction. They can show leak-free running. They are used in explosive atmospheres such as underground mines and chemicals. There are no mechanical gasgets, packings, rotors, blades, gears or wheels in diaphragm pumps. Hence, they are less broken down compared to other types of pumps.



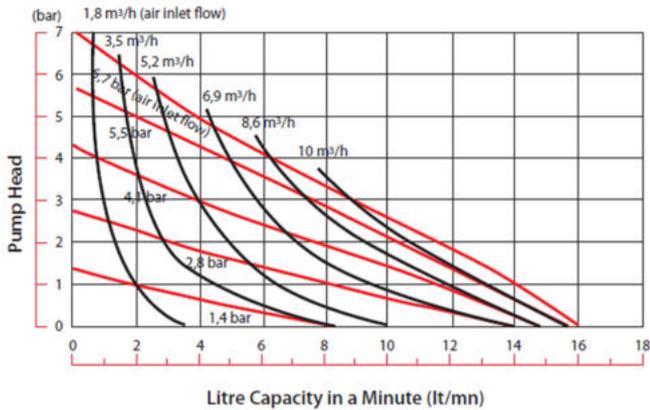
Technical Specifications

Model	(lt/mn)	Input-Output (inch)	Pressure (max. bar)	Altitude (max. m)	Depth (m)	Temperature (°C)	Inlet	Permeability (mm)	Weight (kg)
VP 100 (1")	70	1"	7	140	6	-18 ~ +100	1/2"	4	10.0
VP 150 (1 1/2")	160	1 1/2"	7	140	6	-18 ~ +100	3/4"	6	27.0
VP 200 (2")	200	2"	7	140	6	-18 ~ +100	3/4"	6	34.0
VP 300 (3")	360	3"	7	140	6	-18 ~ +100	3/4"	8	55.0

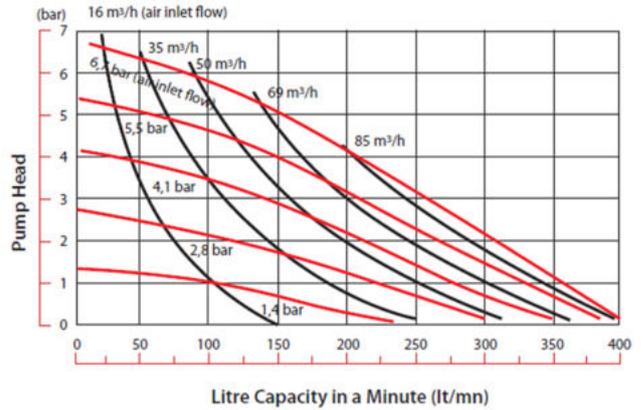


Performance Curves

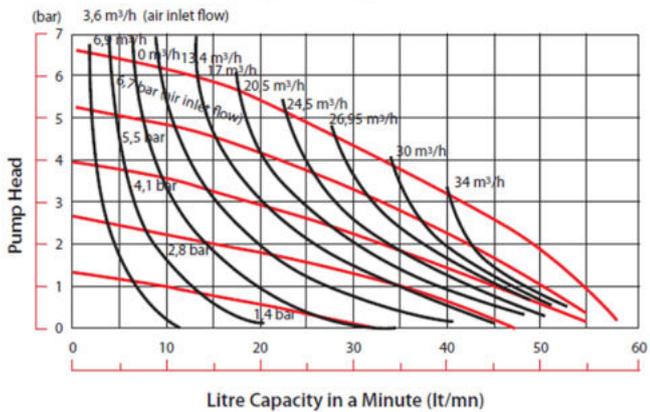
VP 02 (1/4") Diaphragm Pump Performance Curve



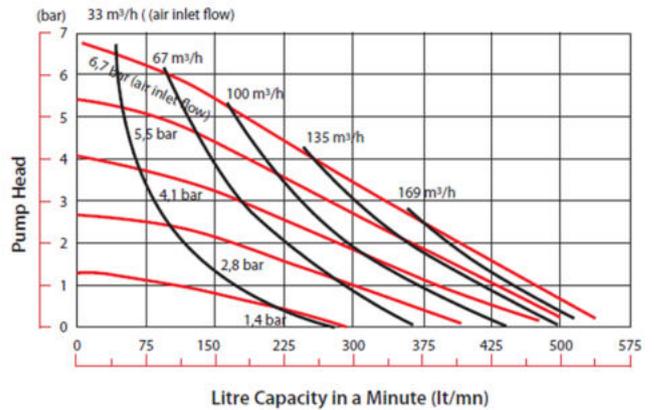
VP 15 (1 1/2") Diaphragm Pump Performance Curve



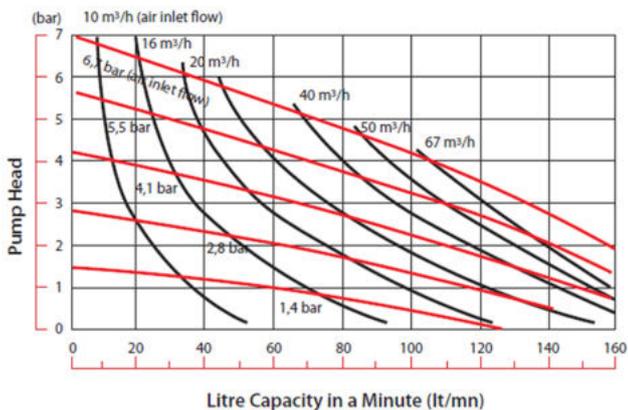
VP 05 (3/4") Diaphragm Pump Performance Curve



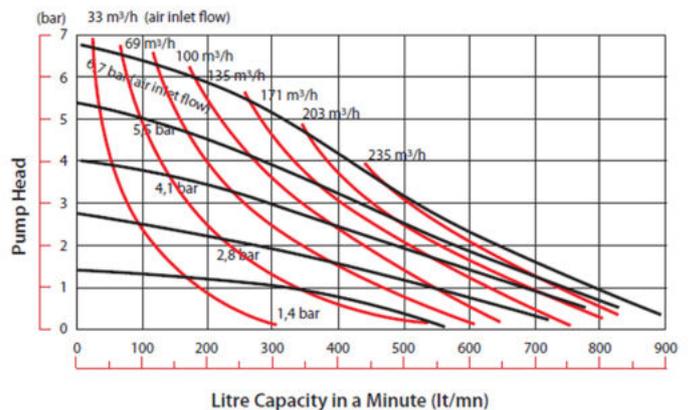
VP 20 (2") Diaphragm Pump Performance Curve



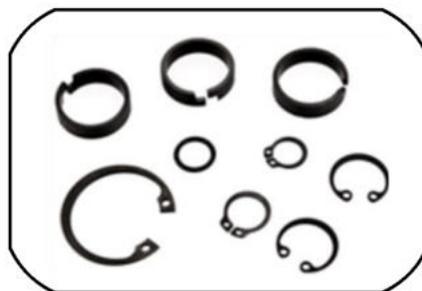
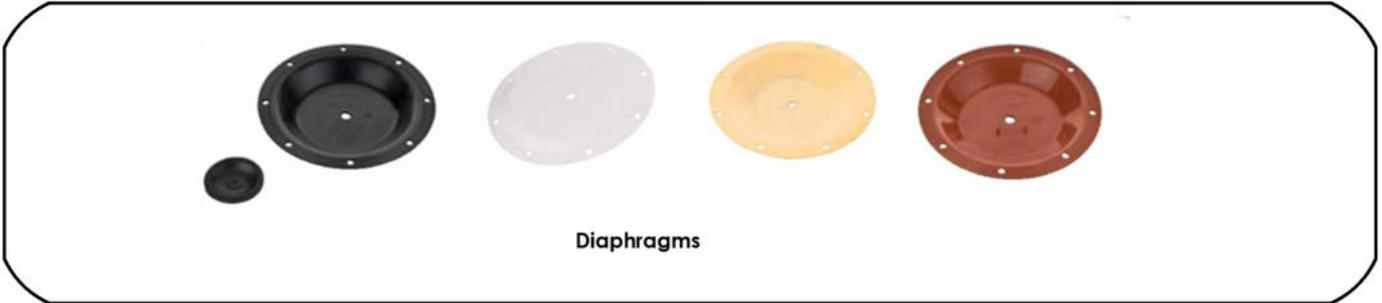
VP 10 (1") Diaphragm Pump Performance Curve



VP 30 (3 ") Diaphragm Pump Performance Curve

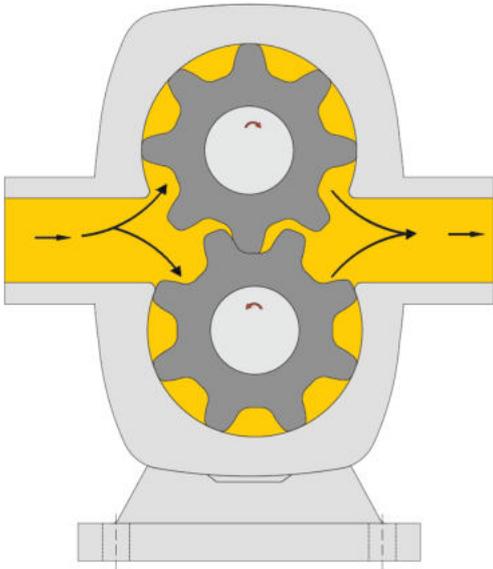


Spare Parts



External Gear Pump

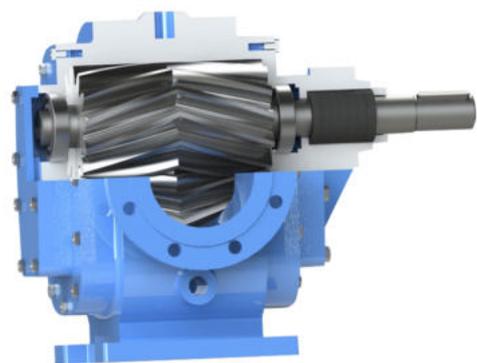
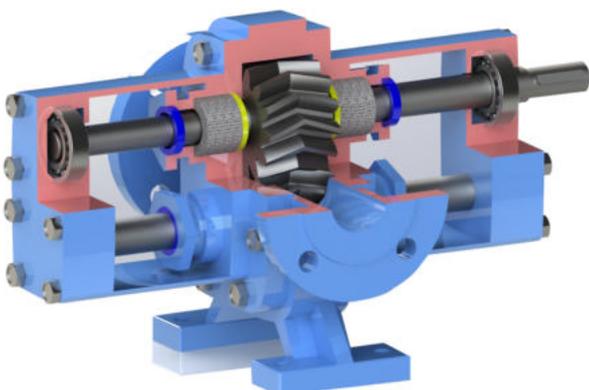
How Do the External Gear Pumps Works?



Gear Pumps are comprised of a fixed casing two (2) or more meshing gears of equal size. Normally one gear is coupled to the drive shaft while the other runs as an idler. The interaction of the meshing gears and close tolerance of the casing, create the vacuum and the pressure which carry the fluid through the pump. Gear pump are usually bidirectional and produce no pulsation. The fluid being pumped lubricates the close tolerance wear surfaces, therefore this unit should not be allowed to run dry or be used with abrasive laden liquids.

Transferred To Liquid :

Chocolate, Glucose, Cacao oil, Vegetable oil, Molasses, Animal fats, Gelatin, Paints, Adhesive, Solvents, Toluene, Paraffin, Wax, Detergent, Glycerine, Asphalt, Fuel-oil, Coustics, Shampoo, Bitumen, Mineral Oil, Natural Oil, Wine, Gazoline, Gum, Varnish, Ink Printers, Olive oil, Honey, Kerosene, Hot oil, Milk, Syrups, Cream, Astos, Soap Liquors, Tomato Juice, Naphtha, Greases, Alcohol, Crude oils, Coal Tar, Resin.



External Gear Pump

Pump Selection Chart

Pump Type	Capacity (m ³ /h)	Viscosity SSU	Speed(rpm)	Inlet - Outlet	Pressure (BAR)					
					2	3	4	6	10	15
					Power (KW)					
NDP - 01	1	500	1500	R 3/4"	0,37	0,37	0,55	0,55	0,75	1,1
NDP - 02	2	500	1500	R 1"	0,55	0,55	0,75	0,75	1,1	1,5
NDP - 03	3	500	1500	R 1 1/4"	0,55	0,75	0,75	1,1	2,2	3
NDP - 04	4	500	1500	R 1 1/4"	0,75	1,1	1,6	2,2	3	4
NDP - 05	5	500	1500	R 1 1/4"	1,1	1,5	2,2	3	4	5,5
NDP - 06	6	500	1500	R 1 1/4"	1,5	2,2	2,2	3	4	5,5
NDP - 10	10	1000	1000	R 2"	3	3	4	5,5	7,5	11
NDP - 15	15	1000	1000	DN 65	4	4	5,5	7,5	11	15
NDP - 20	20	1000	1000	DN 65	4	5,5	7,5	11	22	30
NDP - 30	30	1000	1000	DN 80	5,5	7,5	11	15	22	37
NDP - 40	40	1000	1000	DN 80	7,5	11	15	22	30	45
NDP - 50	50	1000	1000	DN 100	7,5	11	15	22	30	45
NDP - 75	75	1000	1000	DN 125	11	15	22	30	37	
NDP - 100	100	1000	1000	DN 150	18,5	22	37	45	55	

Viscosity Conversion Chart

SSU	Stokes	Centi Stokes	Poises	Centi Stokes	Engler Seconds	Real Wood No:1 Seconds	Sample Liquid
31	0.010	1.000	0.008	0.800	54	29.000	Water
35	0.025	2.560	0.020	2.050	59	32.100	Kerosene
50	0.074	7.400	0.059	5.920	80	44.300	No 2 Fuel-oil
80	0.157	15.700	0.126	12.600	125	69.200	No 4 Fuel-oil
100	0.202	20.200	0.162	16.200	150	85.600	Transformeoil
200	0.432	43.200	0.346	34.600	295	170.000	Hidrolik
300	0.654	65.400	0.522	52.200	470	254.000	SAE 10 Oil
500	1.100	110.000	0.880	88.000	760	423.000	SAE 20 Oil
1000	2.160	220.000	1.730	173.000	1500	896.000	SAE 30 Oil
2000	4.400	440.000	3.520	352.000	3000	1690.000	SAE 40 Oil
5000	10.800	1080.000	8.800	880.000	7500	4230.000	SAE 50 Oil
10.000	21.600	2160.000	17.000	1760.000	15000	8460.000	SAE 60 Oil
50.000	108.000	10800.000	88.000	8800.000	75000	43660.000	Molasses B
100.000	216.000	21600.000	173.000	17300.000	150000	88160.000	Molasses C

Speed Selection Chart For Viscous Liquids

Viscosity Centi Stokes	1	110	220	1100	2200	11000	22000
Speed rpm	1500	1500	1000	800	500	300	200

External Gear Pump

Specification Of Gear Pumps

FLOW : 0,5 – 200 m³/h

PRESSURE : 0 – 15 BAR

PERFORMANCE : Positive displacement.

Little flow decrease with pump pressure increase. Flow increases with speed increase.

NPSH: 0 – 6 meter

LIQUID : All the viscous liquids free from abbresives corrosive substances

NOISE : Pulsation-Free

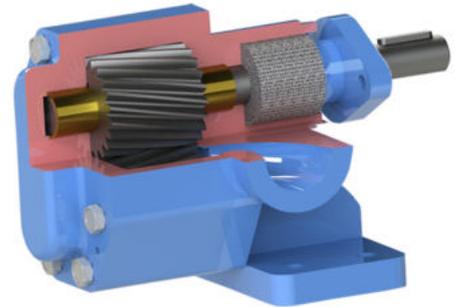
POWER REQUIRED : Power demand increases with speed and pressure

DISCHARGE LINE : Positive displacement relief valve necessary to shut off

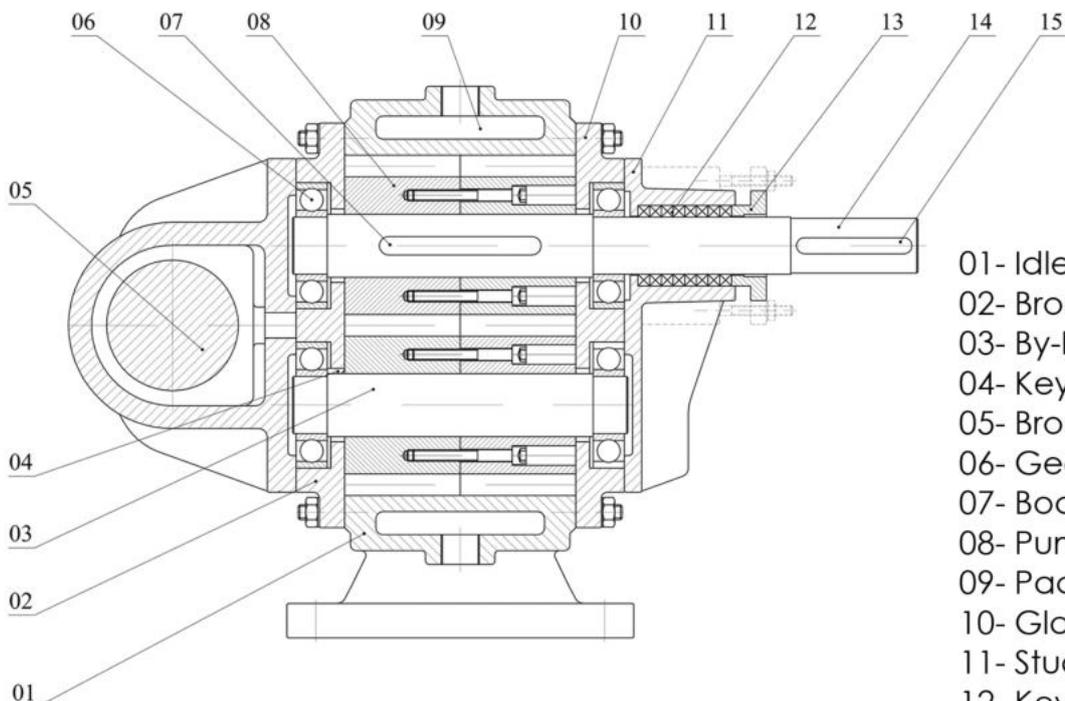
TEMPERATURE : max. 180 °C

VISCOSITY : max. 22.000 SSU

SEAL ARRANGEMENT : Packing Seal – Mechanical Seal

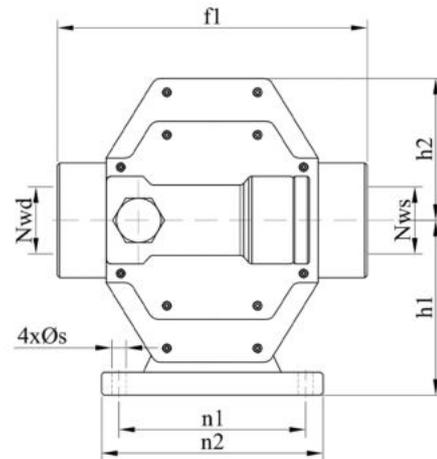
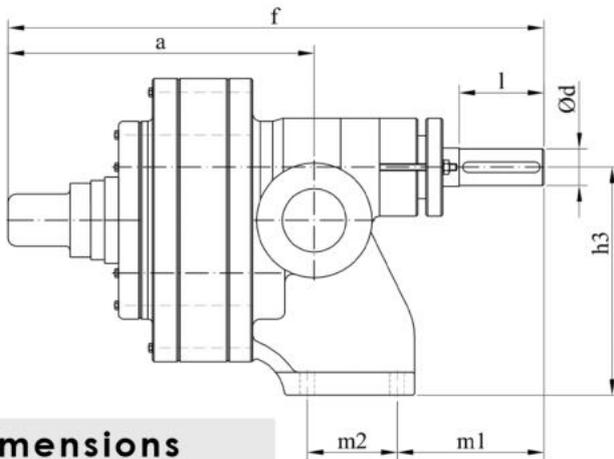


Section View



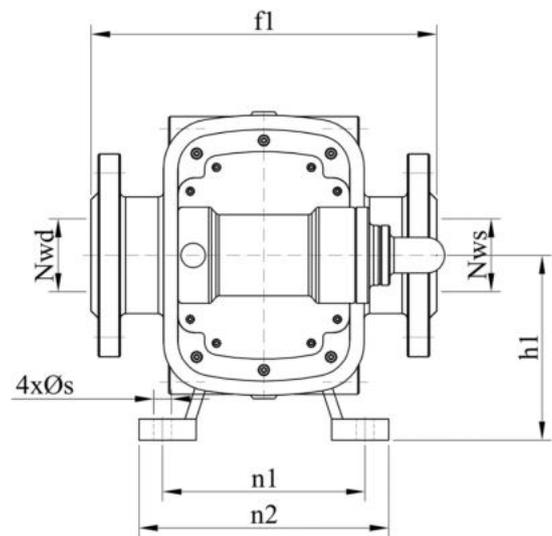
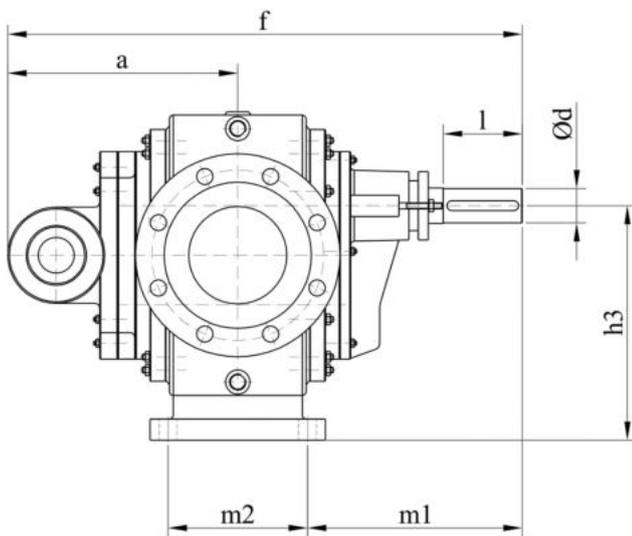
- 01- Idler Shaft
- 02- Bronze Bearing
- 03- By-Pass
- 04- Key
- 05- Bronze Bearing Cover
- 06- Gear
- 07- Body
- 08- Pump Body
- 09- Packing
- 10- Gland
- 11- Stud
- 12- Key
- 13- Main Shaft

External Gear Pump



Dimensions

POMPA TIPI PUMP TYPE														
	Nws	Nwd	a	f	fl	m1	m2	n1	n2	Øs	h1	h3	l	Ød
NDP-01	R3/4"	R3/4"	150	360	102	88	30	70	100	10	63	85	40	16
NDP-02	R 1"	R 1"	160	370	125	95	40	90	120	10	92	115	40	18
NDP-03	R 1"	R 1"	170	380	125	95	40	90	120	10	92	115	40	18
NDP-04	R1 1/4"	R1 1/4"	190	400	125	100	40	90	120	12	92	115	40	18
NDP-06	R1 1/2"	R1 1/2"	200	410	160	110	50	100	130	12	100	134	45	24
NDP-10	R1 1/2"	R1 1/2"	260	470	160	110	50	100	130	12	100	134	45	24



Dimensions

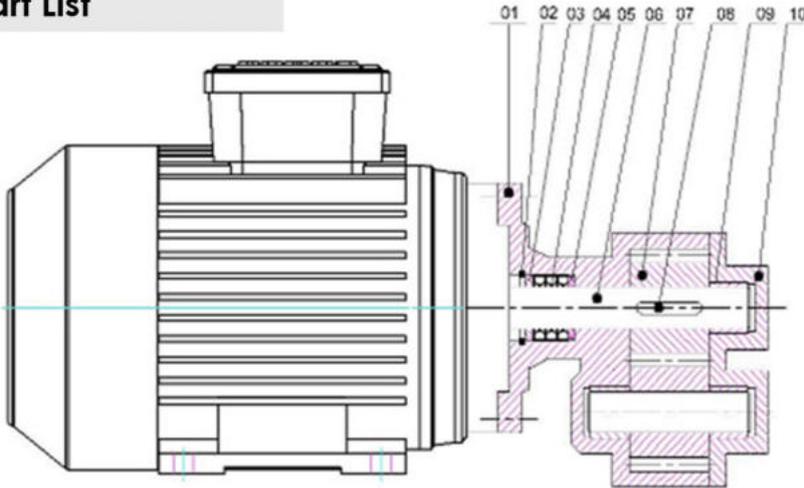
POMPA TIPI PUMP TYPE														
	Nws	Nwd	a	f	fl	m1	m2	n1	n2	Øs	h1	h3	l	Ød
NDP-15	DN 65	DN 65	290	490	305	218	55	180	220	14	165	195	50	28
NDP-20	DN 65	DN 65	330	520	280	200	110	170	210	14	165	200	50	28
NDP-30	DN 80	DN 80	280	600	335	245	60	230	260	16	200	252	55	36
NDP-50	DN100	DN100	290	660	350	222	115	230	260	16	200	252	55	36
NDP-75	DN125	DN125	320	670	400	260	110	285	325	18	240	310	60	46
NDP-100	DN150	DN150	350	710	400	280	120	285	325	18	240	310	60	46

Monoblock Gear Pump



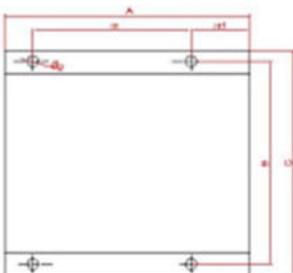
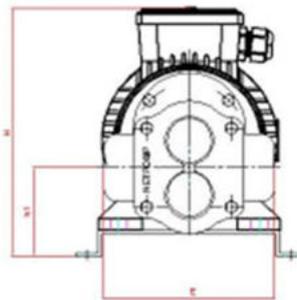
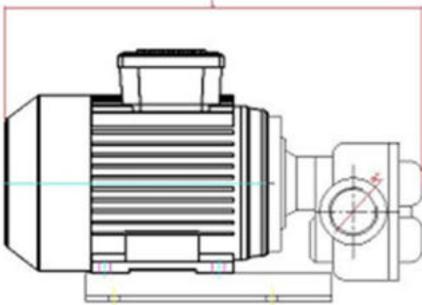
- *Concrete admixture
- *Diesel
- *Fuel-oil
- *Mineral oil
- *Vegetable oil
- *All the viscous liquids free from abbrasives and corrosive substances.

Part List



- 01- Pump Body
- 02- Ring
- 03- Gland
- 04- Felt Gasket
- 05- Main Shaft
- 06- Idler Shaft
- 07- Gears
- 08- Key
- 09- Sleeve Bearing
- 10- Covaer

Dimensions



POMPA TIPI Pump Type	Giriş/Çıkış Inlet/Outlet (R)	L	A	B	C	m	m1	H	h1	E	Ød	kg	Motor Gücü kw-d/dak.
INDP - 3MB	R 1 1/4"	375	217	180	200	140	52	220	80	150	10	18	0,75 kw- 1500 d/dak.
INDP - 3MB	R 1 1/4"	400	217	180	200	140	52	240	90	150	10	18	1,1kw- 1500 d/dak.

High Pressure Gear Pump

High Pressure Gear Pumps

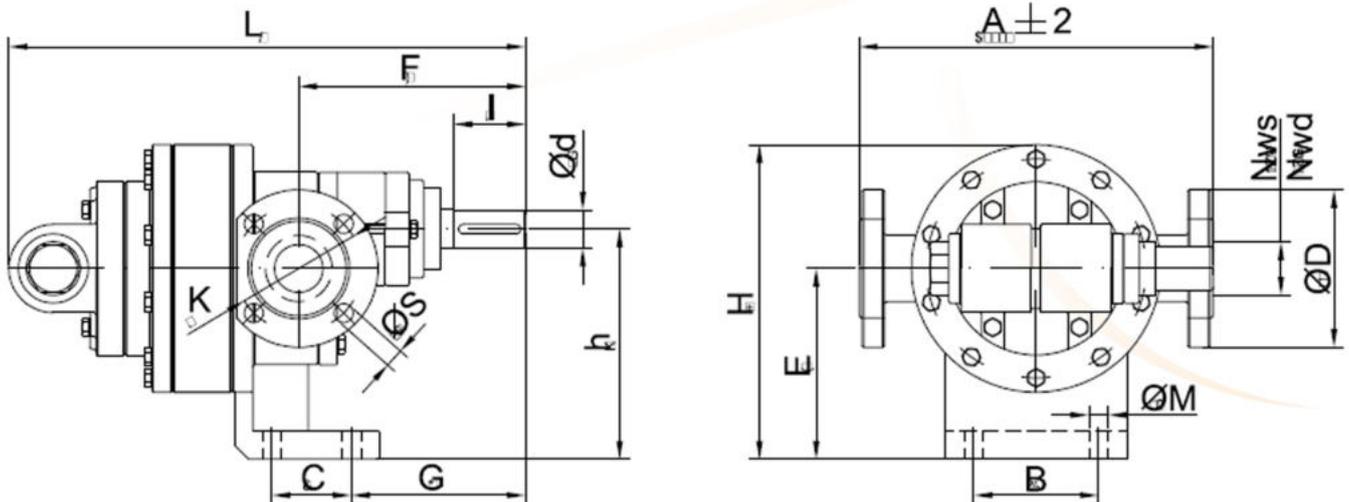
High pressure gear pumps produce high discharge pressures and metered flow because of positive displacement when discharge line is severely restricted or completely closed an external relief valve is required to prevent motor overload and line breakage.

All gear pumps are self-priming although a float valve is recommended. Capacity varies directly with motor speed. The power required varies directly as capacity and pressure.

Because of the close internal tolerances pump be protected with a suitable filter loss in suction line must not exceed 0,5 kg/cm²

Using Areas

Burner pumps
For fuel-oil and oils



Dimensions

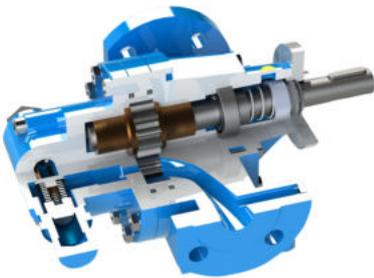
POMPA TIPI Pump Type	A	B	C	E	G	H	h	F	L	I	Ød	ØD	ØM	Nws Nwd	h	ØS
NYP 22	220	120	65	107	90	260	132	152	276	50	24	140	4x12	32	100	4x18
NYP 32	220	120	65	107	90	260	132	152	280	50	24	140	4x12	32	100	4x18
NYP 44	220	120	65	107	90	260	132	152	290	50	24	140	4x12	32	100	4x18
NYP 60	220	120	65	107	90	260	132	152	300	50	24	140	4x12	32	100	4x18
NYP 100	280	170	70	142	130	315	180	182	320	65	34	150	4x14	40	110	4x18
NYP 120	280	170	70	142	130	315	180	182	324	65	34	150	4x14	40	110	4x18
NYP 170	280	170	70	142	130	315	180	182	340	65	34	150	4x14	40	110	4x18

High Pressure Gear Pump

Pump Selection Chart

POMPA TİPİ Pump Type	GİRİŞ-ÇIKIŞ Inlet-Outlet	kg/cm ² →	10	20	30	40	50	60	n:d / dak (rpm)
NYP 22.15	32	m ³ /h →	1,17	1,15	1,14	1,13	1,12	1,08	1450
		kW →	1,1	1,5	3	3	4	4	1450
NYP 32.15	32	m ³ /h →	1,74	1,71	1,65	1,62	1,61	1,41	1450
		kW →	1,5	2,2	3	4	5,5	5,5	1450
NYP 44.15	32	m ³ /h →	2,31	2,21	2,11	2,01	1,91	1,81	1450
		kW →	2,2	3	4	4	5,5	7,5	1450
NYP 60.15	32	m ³ /h →	3,31	3,21	3,19	3,11	3,05	3,01	1450
		kW →	3	4	5,5	7,5	7,5	11	1450
NYP 100.15	40	m ³ /h →	5,35	5,11	4,71	4,61	4,51	4,21	1450
		kW →	4	5,5	7,5	11	15	15	1450
NYP 120.15	40	m ³ /h →	6,61	6,45	6,31	6,25	6,21	6,01	1450
		kW →	5,5	7,5	11	15	18,5	18,5	1450
NYP 170.15	40	m ³ /h →	9,51	9,41	9,35	9,21	9,11	8,91	1450
		kW →	11	15	15	18,5	22	22	1450

POMPA TİPİ Pump Type	GİRİŞ-ÇIKIŞ Inlet-Outlet	kg/cm ² →	10	20	30	40	50	60	n:d / dak (rpm)
NYP 22.10	32	m ³ /h →	0,78	0,76	0,75	0,74	0,73	0,72	1000
		kW →	0,75	1,1	2,2	2,2	3	3	1000
NYP 32.10	32	m ³ /h →	1,16	1,12	1,11	1,08	1,06	0,92	1000
		kW →	0,75	1,5	2,2	3	4	4	1000
NYP 44.10	32	m ³ /h →	1,52	1,46	1,41	1,32	1,26	1,21	1000
		kW →	1,1	1,5	2,2	3	4	4	1000
NYP 60.10	32	m ³ /h →	2,21	2,12	2,06	2,02	2,01	1,92	1000
		kW →	2,2	3	4	4	5,5	5,5	1000
NYP 100.10	40	m ³ /h →	3,56	3,41	3,12	3,06	3,01	2,81	1000
		kW →	3	4	4	5,5	7,5	7,5	1000
NYP 120.10	40	m ³ /h →	4,41	4,31	4,21	4,16	4,12	4,01	1000
		kW →	4	5,5	7,5	11	15	15	1000
NYP 170.10	40	m ³ /h →	6,32	6,26	6,22	6,12	6,06	5,62	1000
		kW →	7,5	11	11	15	16	18,5	1000



Twin Screw Pump

Twin Screw Pumps

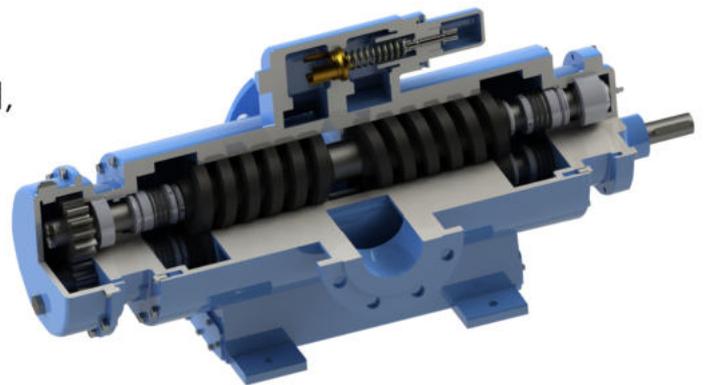
Self-priming rotary displacement pumps in a compact range with external bearings without touching medium.

Due to external timing gears there is not metal to metal contact with the between screw.

Regarding to our design, the pump makes suction from four points Liquid by screws carry towards the pressure side. Provides a pulsing flow of the pump is running. Hydraulic axial loads balanced to zero.

Advantages of Twin Screw Pump

Wide range of applications,
Self-priming,
Pumped capacity proportional to speed,
Compact construction,
Direct drive without speed-reducer possible,
Easy maintenance,
For almost all media and fluids,
High viscosities possible,
Low pulsations,
Low noise level,
Constant flow on varying pressures and volumes,
Very good suction performance.

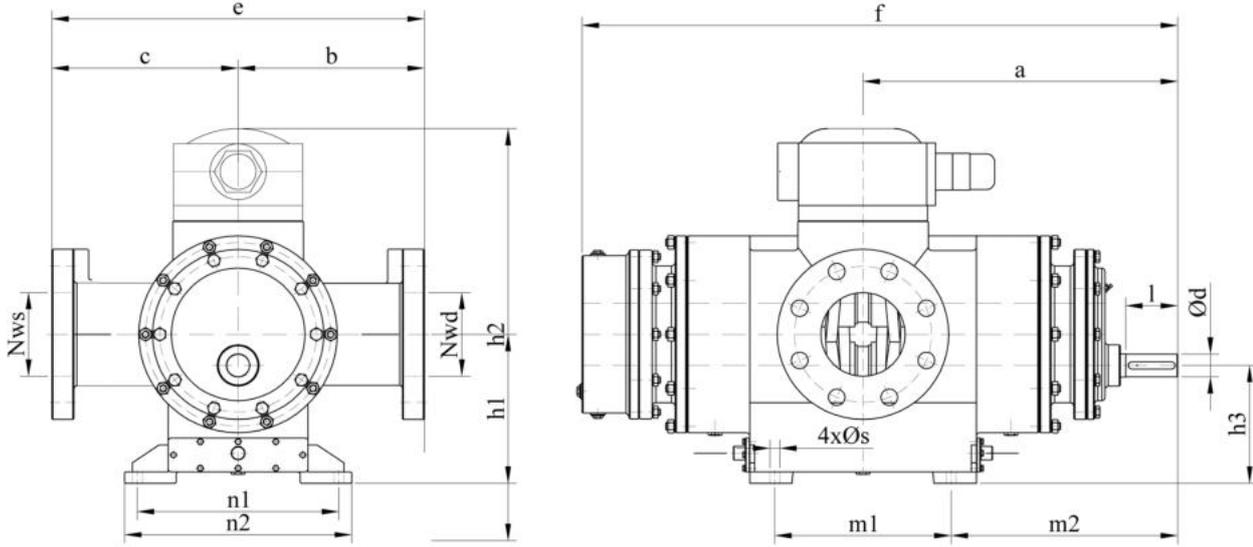


Scopes of Application

Tank Terminal, Petro Chemicals, Marine, Iron-Steel Industries,
Textile Industries, Power Industries, Refineries,
Special Applications

Twin Screw Pump

Twin Screw Pumps / Dimensions



POMPA TİPİ PUMP TYPE	DIN 2501 PN25															
	N_{ws} N_{wd}	a	b	c	e	f	m_1	m_2	n_1	n_2	ϕ_s	h_1	h_2	h_3	l	ϕ_d
VHP 65.20	65	410	170	180	350	800	280	280	220	260	14	190		150	50	30
VHP 65.50	100	530	200	210	410	1000	360	360	250	290	16	215		170	60	35
VHP 125.100	125	640	230	250	480	1300	400	400	300	350	18	240		220	65	44
VHP 200.250	200	860	315	335	650	1680	500	600	400	450	20	400		260	80	55

VHP 100 50

Vestapump

Helezon Pompa

Twin Screw pump

Giriş-Çıkış Flanşı

Inlet-Outlet Flange

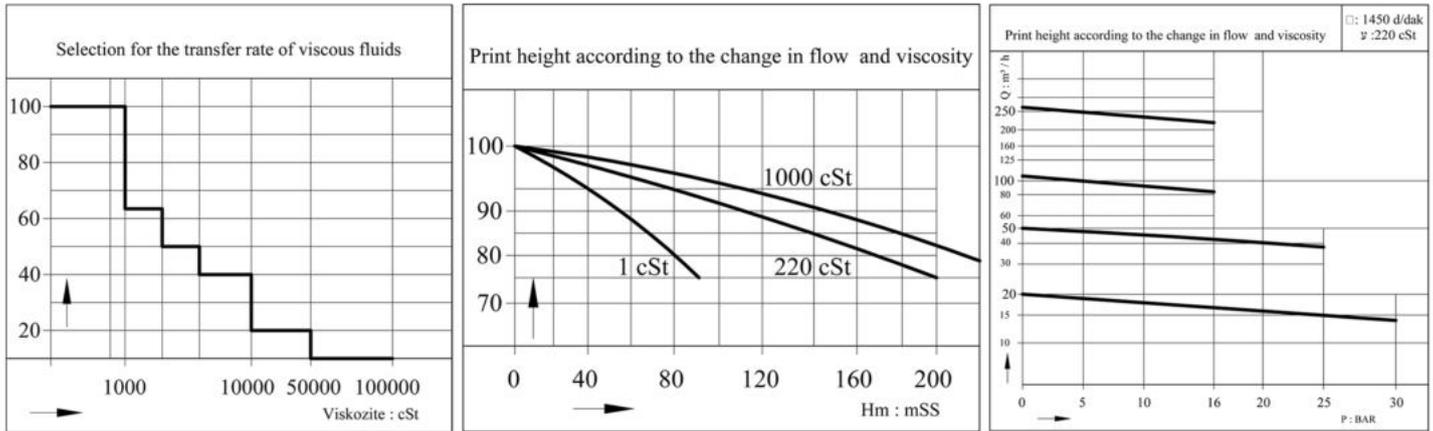
Q: m³/h (1500d/dak.)

Q: m³/h (1500 rpm)



Twin Screw Pump

Technical Charts



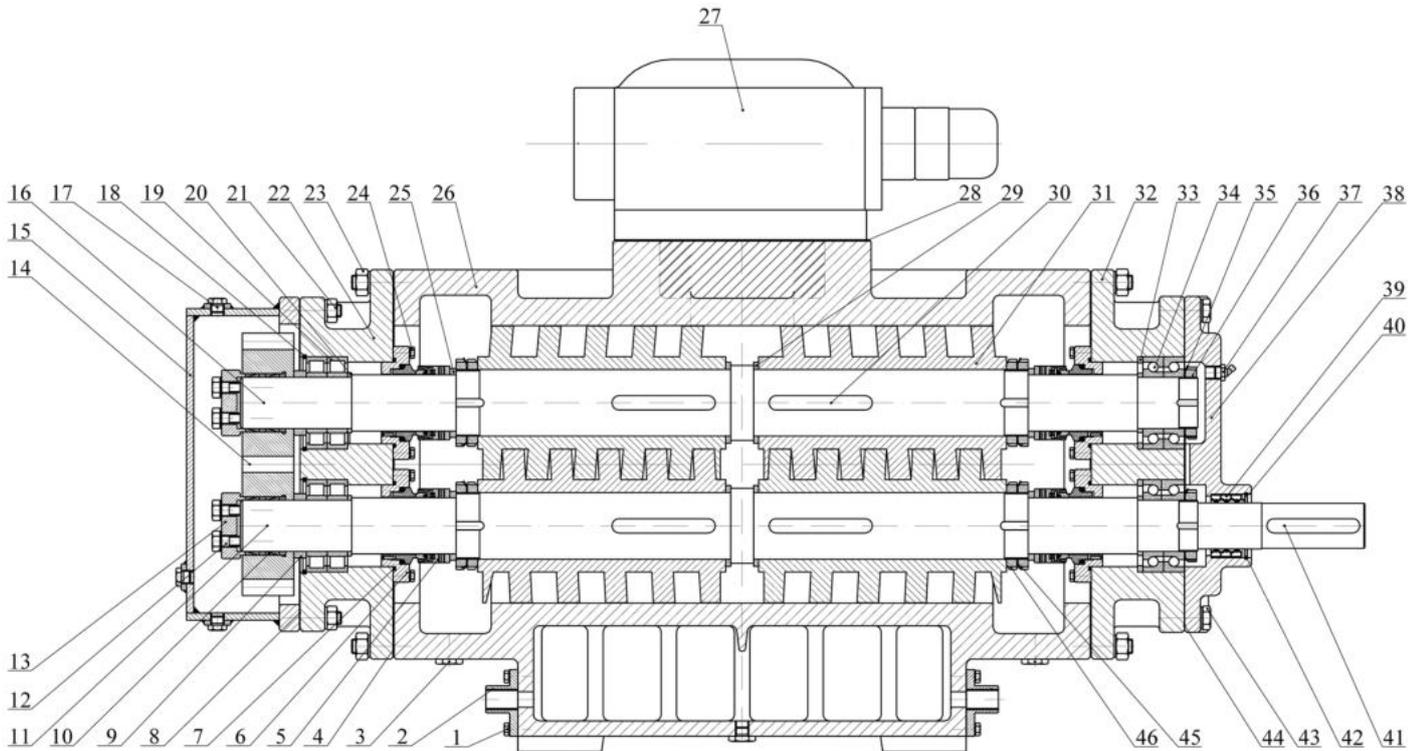
Pump Selection Chart

(1500 d /dak) PUMP SELECTION CHART										
PUMP TYPE	Flow (m ³ /h)	Input Output PN25	Print Height (mSS)							Power According to the Print Height : kw → Viscosity : 220 cSt
			30	50	80	120	160	250	300	
VHP 65.20	10	65	2,2	3	4	7,5	11	15	18,5	22
	20		4	7,5	11	15	18,5	30	37	-
VHP 100.50	30	100	7,5	11	15	22	30	55	-	-
	40		7,5	11	18,5	30	37	75	-	-
	50		11	15	22	37	45			
VHP 125.100	60	125	11	18,5	30	45	55			
	80		15	22	37	55	75			
	100		18,5	30	45	75	90			
VHP 200.250	125	200	22	37	55	90	110			
	160		30	45	75	110	132			
	200		37	55	90	132	180			
	250		45	75	110	180	220			

Note : Determination of the selection of the pump flow rate push for height, viscosity, and suction height must be taken into account. Synchronous speed according to the number of theoretical given flow rates. ± % 5 The difference may

Twin Screw Pump

Part List



- | | |
|----------------------------|-----------------------------|
| 01 Bolt | 24 Bolt |
| 02 Heating Sleeve | 25 Mechanical Stamp Setting |
| 03 Blind Stopper | 26 Pump Body |
| 04 Gasket | 27 By-pass Body |
| 05 Mechanical Seal | 28 Gasket |
| 06 Mechanical Seal Adapter | 29 Spiral Sticker Setting |
| 07 O-Ring | 30 Key |
| 08 Gasket | 31 Spiral |
| 09 Gear Sticker Setting | 32 Bed Carrier |
| 10 Bracelet Wedge | 33 Bearing Stamp Setting |
| 11 Drive Shaft | 34 Bearing |
| 12 Bolt | 35 Stamp of the Contra |
| 13 Fixing Gear | 36 Nut |
| 14 Drive Gear | 37 Grasör |
| 15 Gear Box | 38 Felt Cover |
| 16 Idler Shaft | 39 Felt |
| 17 Blind Stopper | 40 Stamp Felt |
| 18 Hole Ring | 41 Key |
| 19 Bearing | 42 Hole Ring |
| 20 Bearing Stamp Setting | 43 Bolt |
| 21 Stud Bolt | 44 Gasket |
| 22 Bed Carrier | 45 Stamp of the Contra |
| 23 Stud Bolt | 46 Nut |

End Suction Centrifugal Pumps

General Information

Discharge Flange :	DN32.DN250
Capacity :	1750 m ³ /h
Head :	up to 105 m
Speed :	up to 3600 rpm
Liquid Temperature (optional) :	up to -20 0C + 110 0C
Pressure (Pmax) :	16 bar
* (Pmax = Suction Pressure + Head in Close Valve)	
Voltage (optional) :	400 V (+- %5)
Frekans (optional) :	50 - 60 Hz

Dischargeable Liquids

Clean or slightly dirty, low - viscosity fluids

Usage Areas

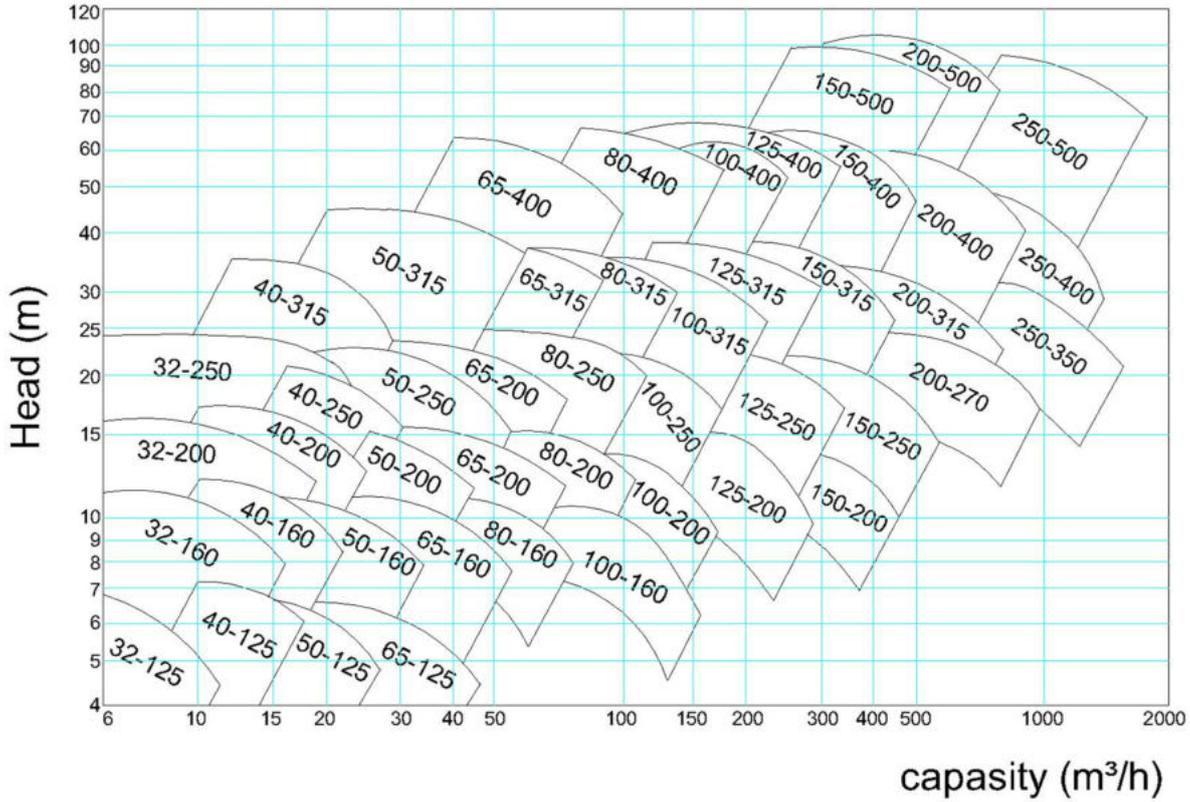
Petro-chemical	Power Plant
Building Systems	Food and Beverage Industries
Iron and Steel Industries	Mining

Design Features

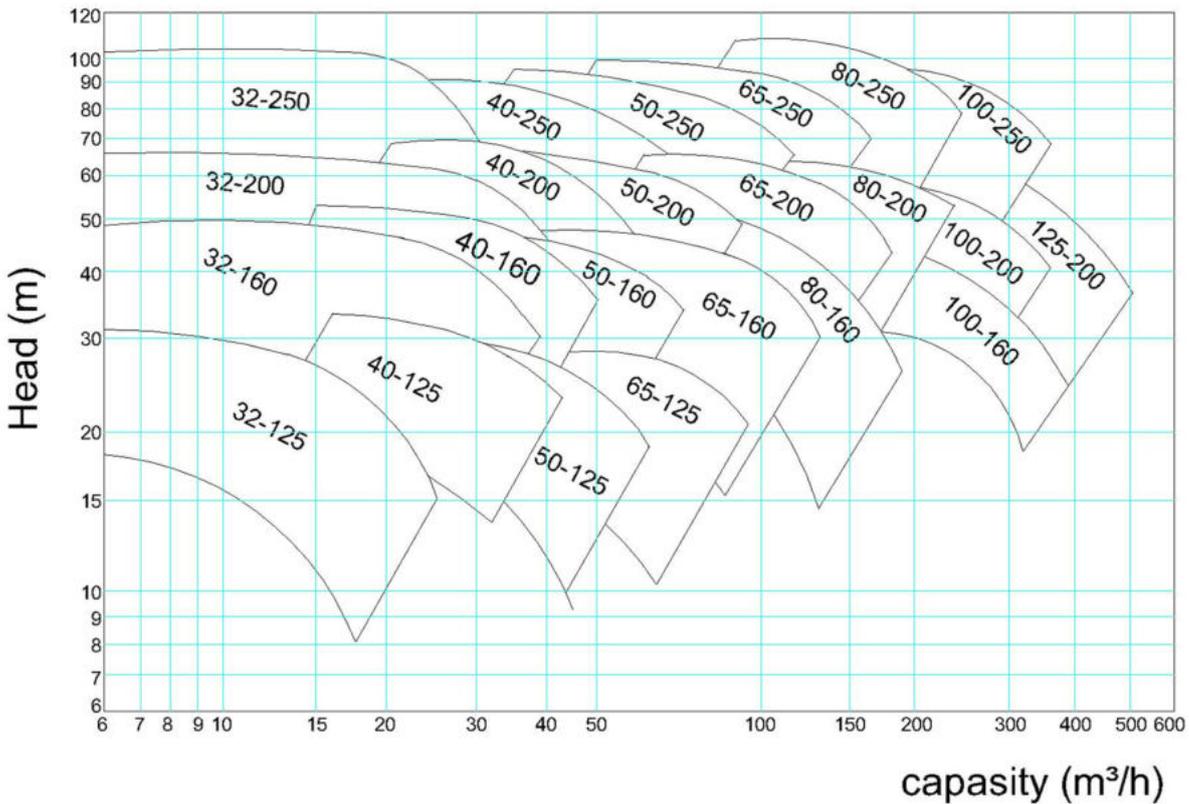
- . SNSP series pumps has designed for pumping non-abrative and small particulars liquids
- . SNSP series pump has just one impeller, pump and motor is connecting by coupling. It gives yours advantages for easy disassembling.
- . Pump dimensions are acceptable TS EN 733 standard.
- . Input and Output Flange Dimensions are acceptable ISO 1092-2/PN 16.
- . SNSP series is off the wheel and wheel balancing holes in the wings to minimize axial loads, dynamic loads are balanced within.
- . Sealing is provided by gland packing. Sealing is provided by also mechanical seal as customer request.
- . Easy disassemble to pump and change impeller, bearings and seals.
- . All impellers are balanced statically and dynamically according to ISO 1940 class 6.3
- . Direction of rotation is clockwise viewed from driver end.

End Suction Centrifugal Pumps

1500 RPM

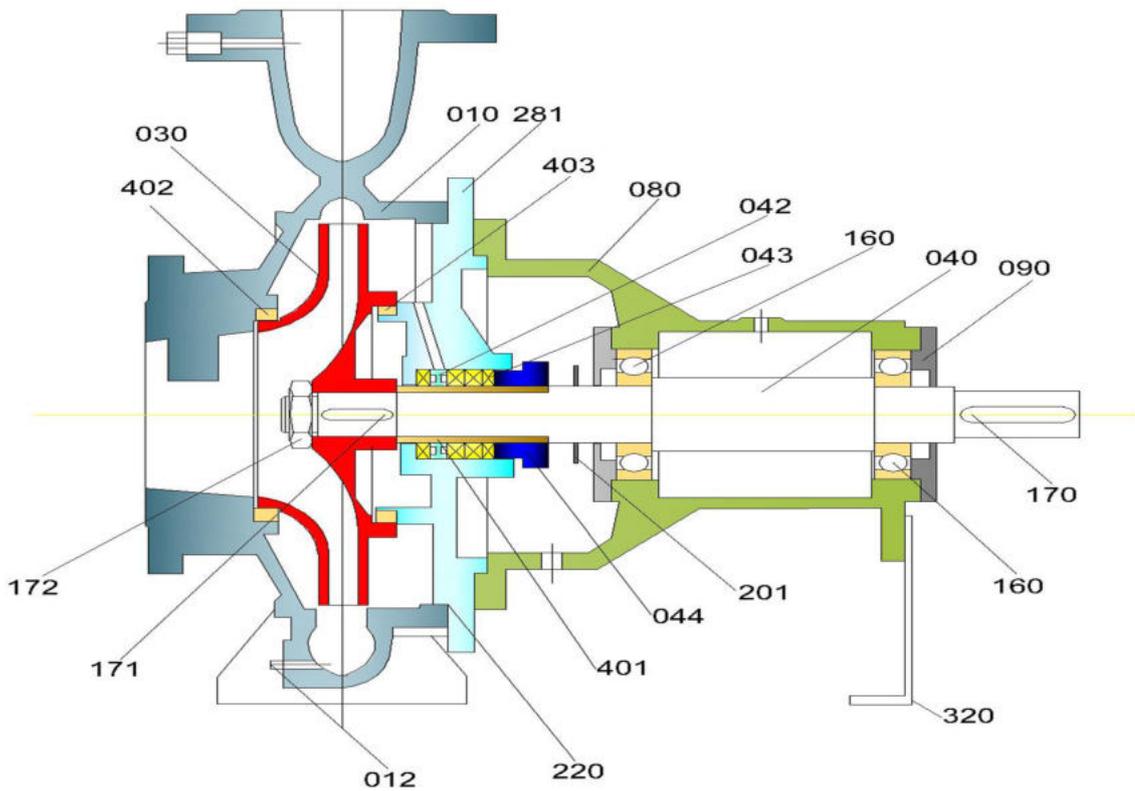


3000 RPM



End Suction Centrifugal Pumps

Sectional View



PART LIST

010	VOLUTE	090	BEARING COVER
030	IMPELLER	044	GLAND
040	SHAFT	012	DRAIN PLUG
281	SEAL BOX	171	COUPLING KEY
080	BEARING BOX	172	IMPELLER NUT
160	BEARING	042	LANTERN RING
201	THROWER	043	GLAND PACKING
220	O-RING	401	SHAFT SLEEVE
170	COUPLING KEY	402	WEAR RING
320	FRAME FOOT	403	WEAR RING

Inline Centrifugal Pumps

It is intended for pumping clean or very slightly polluted, low viscosity liquids without solid particles and fibers.

Operation Details

Suction Flange : DN 40... DN 200

Discharge Flange : DN 40... DN 200 mm

Q (Flow) : 500 m³/h (max.)

H (Head) : 95 m (max.)

Motor (Rotation Per Minute) : 1450 rpm. up to 3600 rpm.

t (Operating Temperature) : from -10 °C (min.) to +140 °C (max.)

Pd (Body Pressure Pmax) : 10-16 bars

Direction of Rotation (Motor) : Clockwise (Right)

(Pmax: Suction Pressure + Pump Head in Closed Valve)



(*) The pump material varies depending on the type of fluid, operating temperature and pressure.

For more information, please refer to our company.

Technical Specifications

- Centrifugal pumps with closed impellers, volute, single-stage which can be connected to a straight pipe.
- Pump shaft is supported between bearings by motor bearings.
- Shaft sealing is provided by mechanical seal.
- SNLL pumps are used by electric motors in accordance with VDI standards and IEC construction size norms.
- Thanks to the removable rear design of SNLL pumps motor, motor carriers, seal bearing, impeller can be dismantled without separating the volute off the piping.
- Suction and discharge flanges conform to EN 1092-2/PN 16.
- SNLL Pumps have 32 models from DN 40 up to DN 200.

Pump Description

Pump Name : SNLL

Discharge Flange DN (mm) : 50

Impeller Nominal Diameter (mm) : 250



Monoblock Centrifugal Pumps

Monoblock Centrifugal Pumps

It is intended for pumping clean or very slightly polluted, low viscosity liquids without solid particles, fibers and abrasives.

Operation Details

Suction Flange : DN 50... DN 200

Discharge Flange : DN 32... DN 150 mm

Q (Flow) : 560 m³/h (max.)

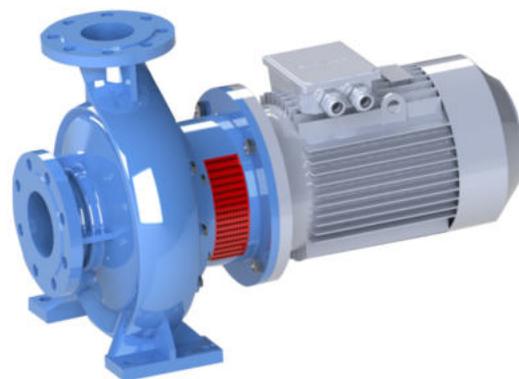
H (Head) : 95 m (max.)

Motor (Rotation Per Minute) : 1450 rpm. up to 2900 rpm.

t (Operating Temperature) : from -10 °C (min.) to +140 °C (max.)

Pd (Body Pressure Pmax) : 10-16 bars

Direction of Rotation (Motor) : Clockwise (Right)



(Pmax: Suction Pressure + Pump Head in Closed Valve)

(*) The pump material varies depending on the type of fluid, operating temperature and pressure.

For more information, please refer to our company.

Technical Specifications

- Centrifugal pumps with a volute, single-stage, end-suction closed impeller mono-block.
- Body sizes conform to EN 733/DIN 24255 standards.
- Suction and discharge flanges conform to EN 1092-2 PN 16 or PN 16.
- Pump shaft is supported between bearing by motor bearings.
- Shaft sealing is provided by mechanical seal.
- SNSM pumps are used by electric motors in accordance with VDI standards and IEC construction size norms.
- SNSM pumps have 38 models from DN 32 up to DN 200.

Pump Description

Pump Name : SNSM

Discharge Flange DN (mm) : 80

Impeller Nominal Diameter (mm) : 250



Vortex Pumps

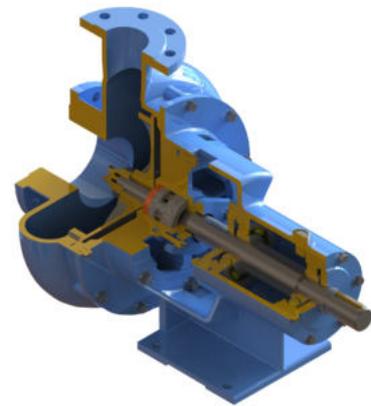
Vortex Pumps

How Does Vortex Pumps Work :

Operating principle vortex pumps circulate without clogging because of its specially designed open wings of its impeller. 15 of the fluid pumped gets into contact with the impeller, the remaining part of the fluid is directed to the pressing port without contacting the impeller by a second vortex motion. due to the contact of the fluid with the impeller is less, wear is lessened to minimum. due to the wear in the body, no flow rate and pressure loss is occurred.

Vortex Pumps Types :

- Dia Blok
- Monoblok
- Vertical Monoblok
- Wet PTT
- General Perpose



Its Advantages :

- Clog free : Large solid particles in the size of outlet diameter pass without any choking interference no problems with long fibres.
- Free passage : Liquid flow passages are not intercepted by impeller only 15 of the pumped liquid passes through the wings.
- Soft pumping action : No damage crystals, because of the slow build up of pressure in the casing.
- Non vibrational operation : The impeller is concentric to the casing very little radial load on bearing no effect of volute.
- Good mixing effect : Due to the continuously changing speed in the casing, mixing is achieved.
- Pumping of liquids having a high solids content or viscosity : This is a result of vortex effect.

Specifications :

- Concentric impeller to casing
- No seaug ring on impeller
- Incorporation of a mechanical seal
- Back vanes on impeller
- Easy access desing



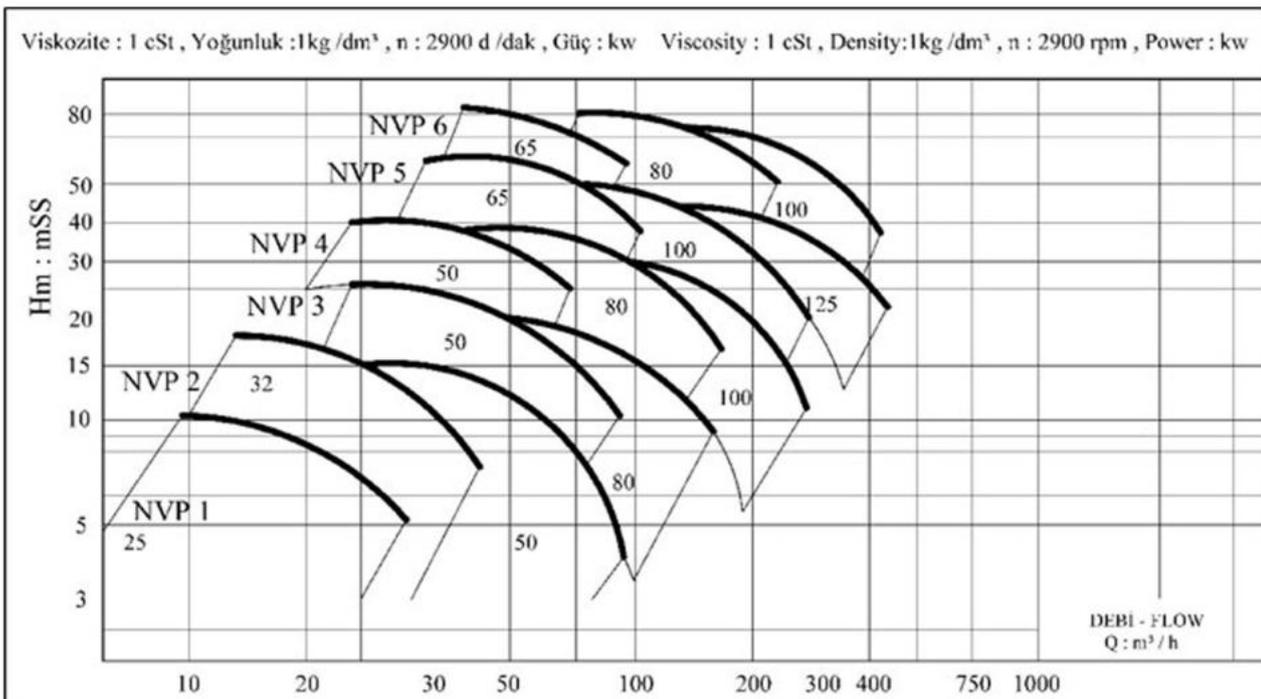
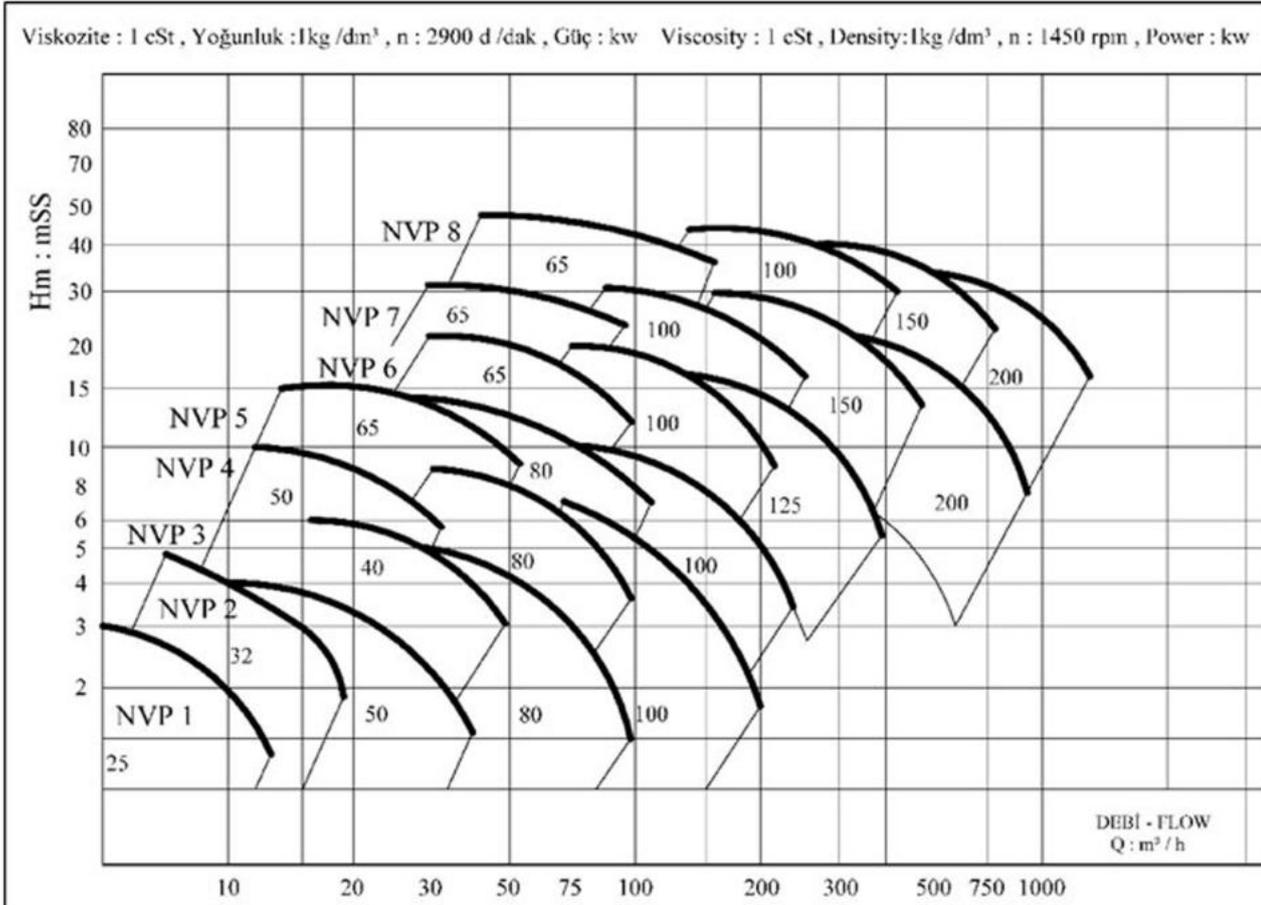
Vortex Pumps

Applications Of Vortex Pumps

- **Waste waters** : Raw unscreened sewage, raw sludge 90, digested sludge, domestic sewage, fish water.
- **Paper industry** : Cellulose and semi-cellulose, waste paper, rag and rag pulp, straw pulp, bagasse stringy textile pulp, linters, brokes, kaolin 80
- **Food industry and agriculture** : Vegetables (peas, beans, carrots), fish offal, potatoes mash, mussels pig food, liquid stable cleaning, liquid manure, bone meal, chicken waste with feathers, perlite-grounded and fluid.
- **Building industry** : Sand and gravel in water. gas-concrete, slurry.
- **Sugar industry** : Beet and beet chip-mixtures, beet tails, leaves and grass with water, milk of lime sludge from the setting tanks, thin and thick juices with.
- **Chemical industry** : Crystal suspensions filter substances, caustic soda solution 50, tanning solution, colour dyes, sulphuric acid oxalic acid with paste additives. water with powdered coal solution, polystyrene globules with water, methyl crystals, hot brine, aluminium 30, magnesium sulphate, washing powder-slurries zinc slurry, dichlorobenzene sludge, glycerine and starch milk, latex, resing glue, water-glass paint suspensions, acetone slurry, organic boric acid crystals.
- **Textile industry** : Synthetic and naturel fibres, suspensions.
- **Steel and heavy industry** : Sinterforming water, coke and coal water mixtures, water with soot globules, granulated ore with water. ash-soot slurries, fluid for lapping meachines.
- **Petrochemical industry** : Test petrol with fuller's eart, dichloromethane with over, ure-parafin, raw with coke, bitumen suspensions, raw oil, fuel-oil slack wax. slops catalytic sludge, leatherwaste, leatherfibres with water.

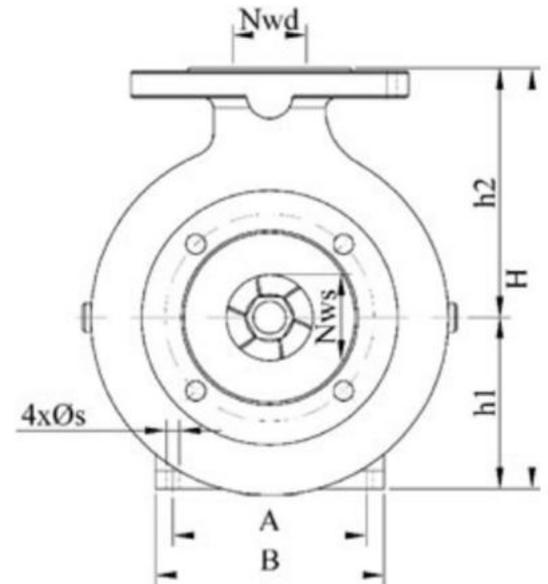
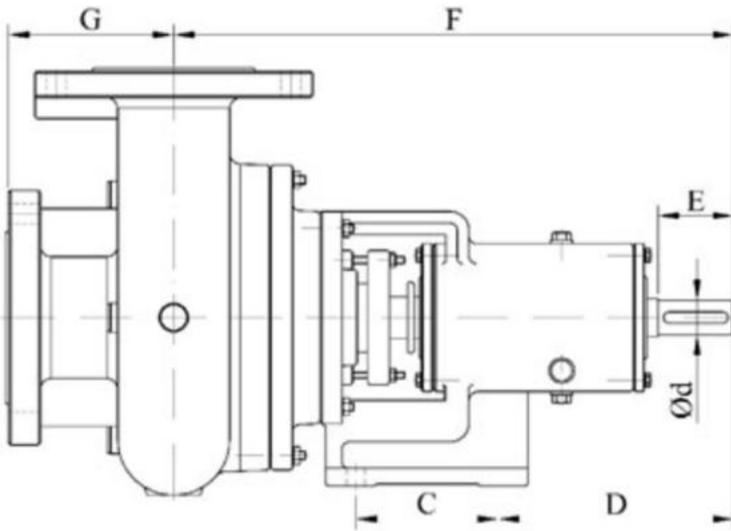


Performance Curves of Vortex Pumps



Vortex Pumps

Dimensions



Pompa Tipi Pump Type	FLANŞLAR PN 16 DIN 2501 TS 816/4 / FLANGES PN 16 DIN 2501 TS 816 / 4													
	Nws	Nwd	A	B	C	D	E	F	G	h1	h2	H	Ød	Øs
NVP 1. 25	50	25	130	170	100	170	50	360	75	112	180	292	24	12
NVP 2. 32 NVP 2. 50	65	32 50	130	170	100	170	50	360	75	112	180	292	24	12
NVP 3. 40 NVP 3. 80	65 100	40 80	130	170	100	170	50	360	75 85	112	180 200	292 312	24	12
NVP 4. 50 NVP 4. 80 - 100	65 100	40 80	140	180	110	200	60	405	90 110	132	180 220	312 352	28	13
NVP 5. 50 - 65 NVP 5. 80	80 100	50 65	150	190	125	220	70	490	110 120	160	200 220	360 380	34	14
NVP 6. 50 - 80 NVP 6. 125	80 125	65 80	180	220	165	235	80	515	120 140	160	250 280	450 480	38	16
NVP 7. 50 - 80 NVP 7. 100 - 200	100 200	80 150	200	240	180	260	100	580	140 160	200	260 280	480 500	42	18
NVP 8. 65 - 100 NVP 8. 125 - 200	125 200	100 150	220	260	200	280	120	600	160 180	220	280 300	520 540	42	18

General Information

Discharge Flange	: DN 32 – DN 150 mm
Capacity	: 400 m ³ /h
Head	: 140 m
Motor Speed	: 1500-3600 rpm
Operating Temperature	: 350°C (max.)
Cooling	: Air cooling
Pressure (Pmax)	: 16 bar

(Pmax= Suction Pressure + Shut off Head)

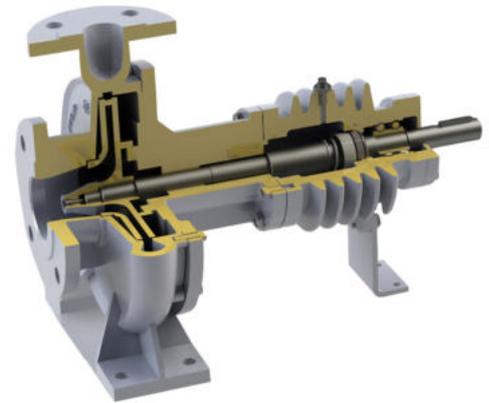
Design Standard : EN733 (DIN 24255)

Handled Liquids

All types of organic and synthetic oils which made for heat transfer and not include abrasive components.

Applications

Chemical and Petrochemical Plants
 Paper Factories
 Sugar Factories
 Food and Medicine Factories
 Plastic, Rubber and Synthetic Fiber Factories
 Cooking and Heating Ovens (Furnaces)
 Textile and Leather Industry
 Iron-Steel Industry
 Paint Industry
 Asphalt and Bitumen Processing Industry
 Wood processing and Furniture Industries
 Heat Transfer Facilities Above 100°C



Approximate Capacity Calculation

$$V=Q/(Cp.p.\Delta T)$$

V: Pump capacity (m³/h)

Q: Boiler heat capacity (kW or kcal/h)

Cp: Oil average specific heat (kJ/kg.K or kcal/kg.K)

p: Oil average density (kg/m³)

ΔT: Temperature difference (round-trip)

Oils, using in hot oil pumps, commonly volumetric specific heat: (Between 200-350°C)

Cp.p=500 kcal/m³.K

In usage of different oils, check the tables.

In this situation;

$$V= (Q(kcal/h))/(500.\Delta T)$$

$$V= (Q(kW))/(500.\Delta T) \quad (1kW=861 \text{ kcal/h})$$

In practice, the difference between temperatures

in round-trip is 18 to 48 ° C. In this situation;

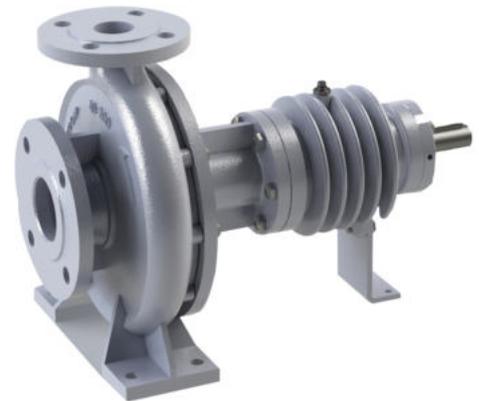
$$\Delta T=18^{\circ}\text{C} \quad V(\text{m}^3/\text{h})= (Q(\text{kcal/h}))/9000$$

$$(Q(\text{kW}))/10,5 \quad \Delta T=30^{\circ}\text{C}$$

$$V(\text{m}^3/\text{h})= (Q(\text{kcal/h}))/15000$$

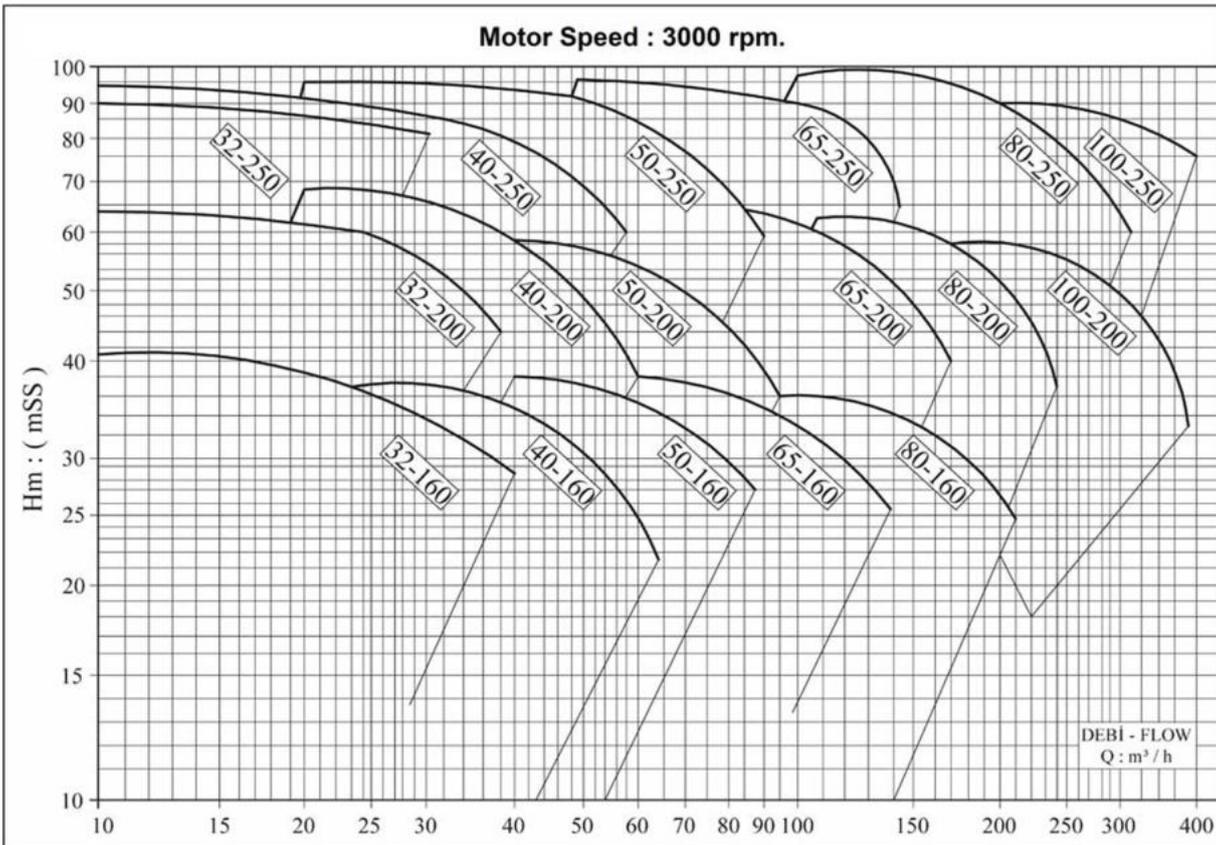
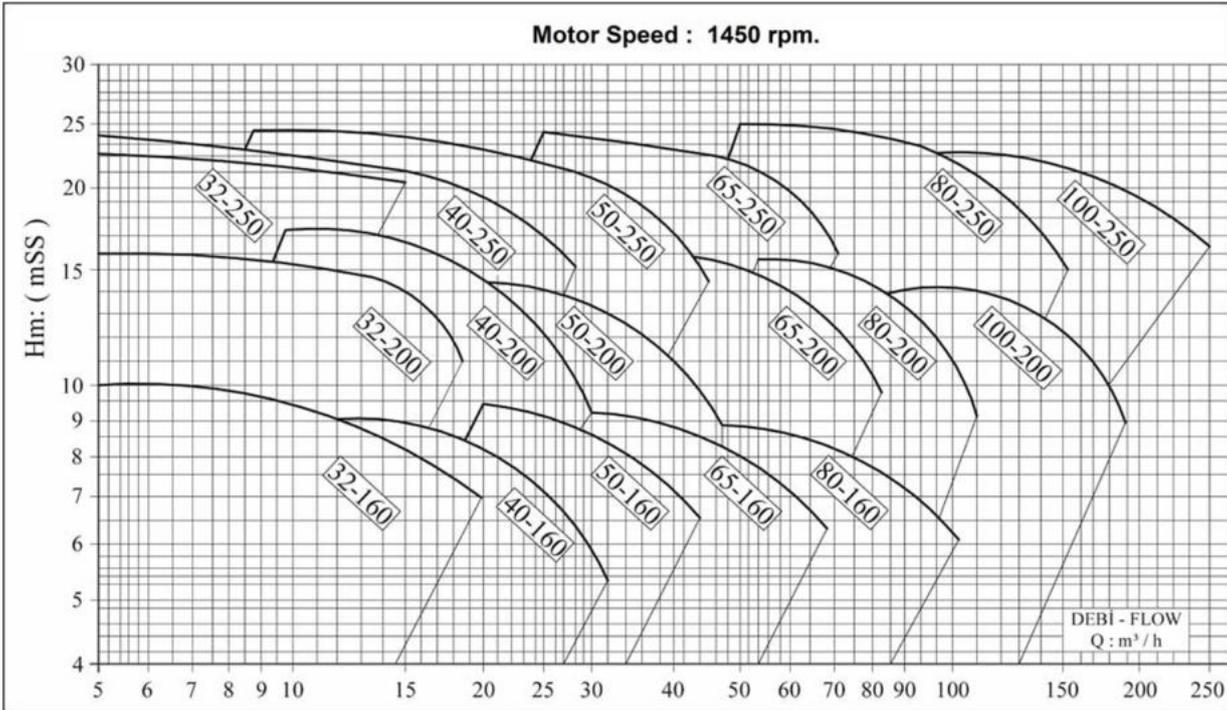
$$Q(\text{kW}))/17,4 \quad \Delta T=42^{\circ}\text{C}$$

$$V(\text{m}^3/\text{h})= (Q(\text{kcal/h}))/21000=(Q(\text{kW}))/24,4$$



Hot Oil Pumps

Performance Curves of Hot Oil Pumps



Regenerative Pumps

How Does Regenerative Pumps Work

The main difference between regenerative pumps and hydro extractor pumps is that the fluid passes through a closed propeller in hydro extractor pumps but in the regenerative pumps, the fluid moves by passing through the cogs that are located in both surfaces of the propeller.

The propeller balances itself by generating equal pressure in both gaps while working within the the steps, thus, the load that comes to the engine bearings can be balanced hydrolically.

Looked at the diagram carefully, the wings of the propeller move within the flow range of the water pass.

When the fluid comes within the pump, the propeller applies centrifugal force and acquires the pressure by moving the fluid within each of the wings.

Therefore, when operating, the pump originates an orderly flow speed.

In order to prevent the the loss of efficiency, fine gaps are needed in the steps and in the propeller that operates in the steps.

Advantages

- . Pumps that can work alike in both ways
- . Automatic emission
- . Positive displacement
- . Flow change is less in relation to the pressure
- . Extensive working space

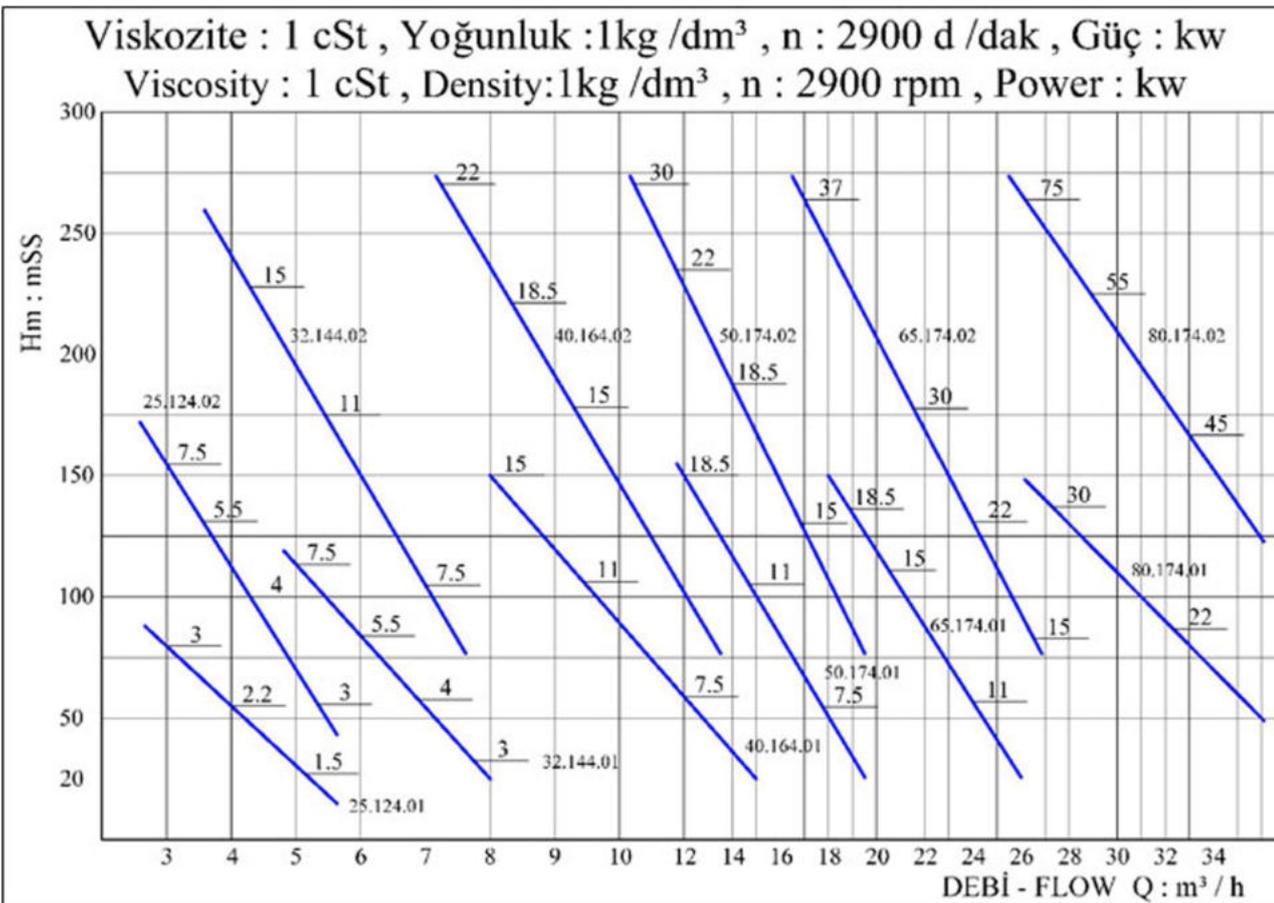
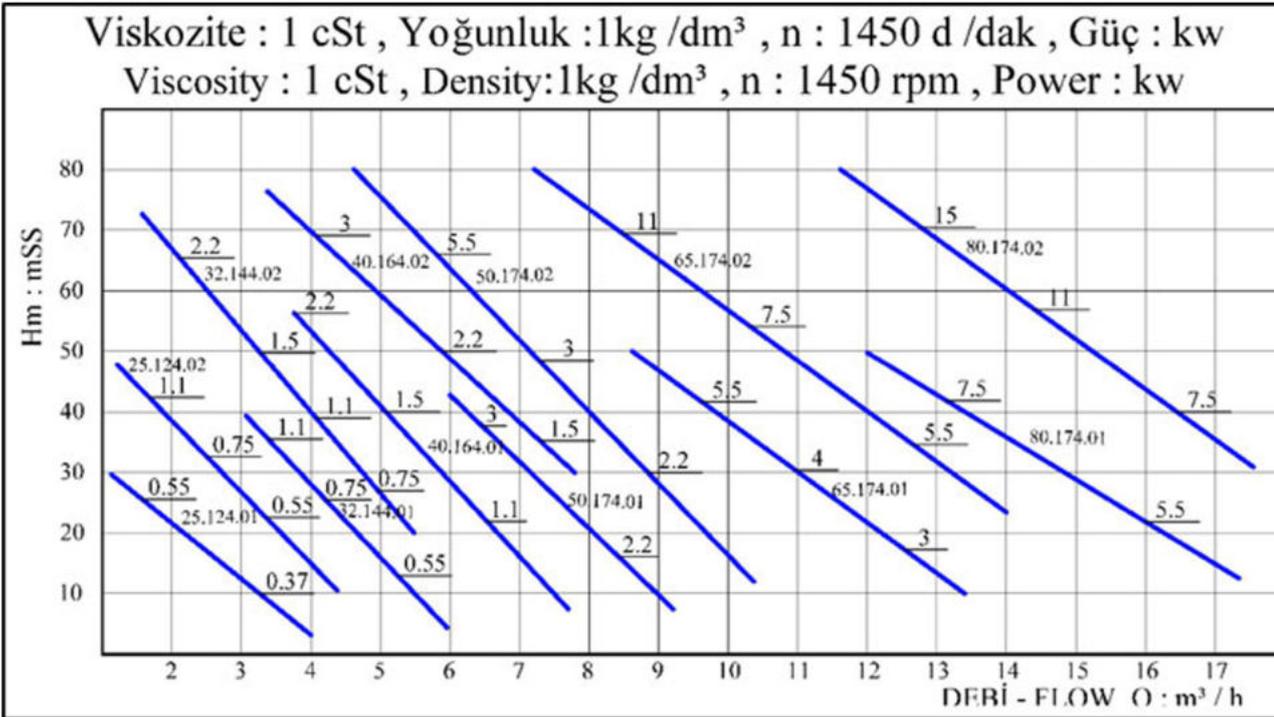
Applications

- . Chemical fluids
- . Pressure tank – hydrophore
- . Condenser
- . Marine service
- . Heated water (180 0 C)
- . Heated oil (300 0 C)
- . Chemical solvents



Regenerative Pumps

Performance Curves of Regenerative Pumps



Filters

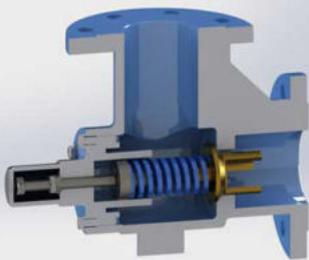


- Suction line is designed for.
- Large and solid particles are used to prevent the pump
- Filtration: 40 microns - 1100 microns
- Input-Output: DN 25 - DN 200

MATERIAL:
Steel, stainless steel,

SEALING:
O-ring, Gasket

Safety Valves



- Closed-circuit systems, the discharge line, circuits, and systems are used to protect the pump.
- direction of rotation of the fluid passing through the safety valves should be the main tank.
- Pressure Range: 1 Bar-60 Bar
- Input-Output: DN 25 - DN 150

MATERIAL:
Cast Iron, Ductile Iron, Steel, Stainless Steel, Bronze etc.

SEALING:
O-ring, Gasket

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