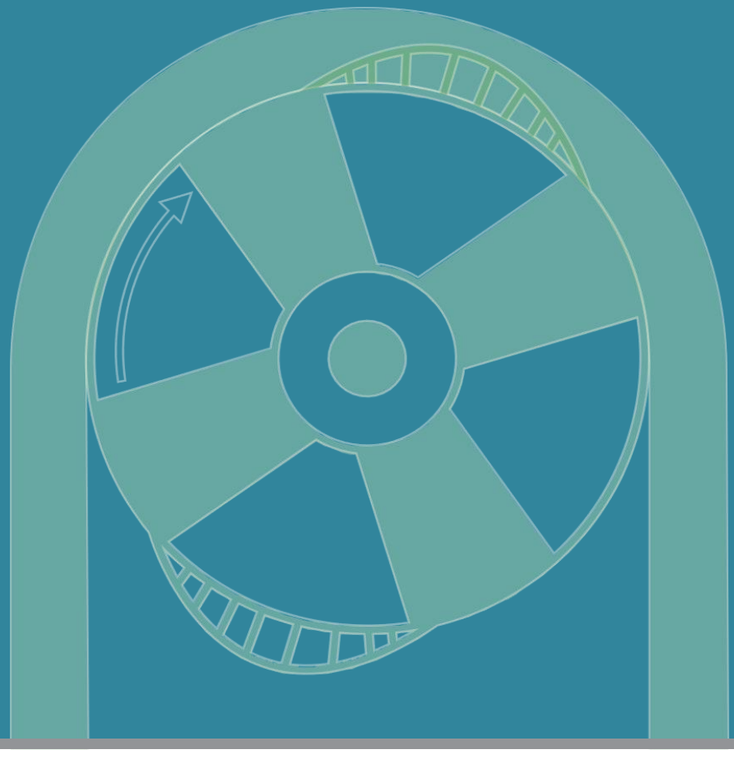
Product under license of SWEDISH HOUSE AB SWEDEN

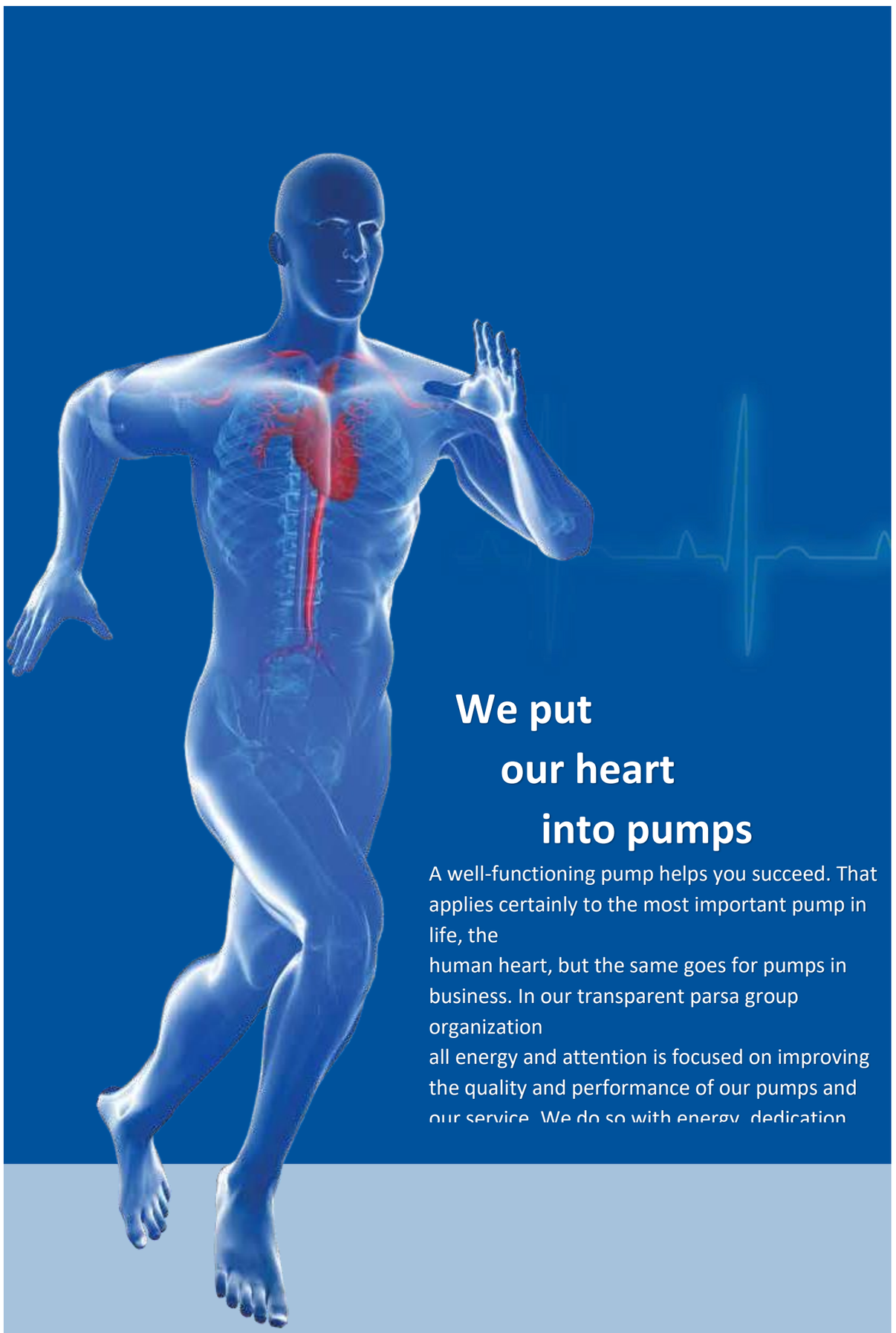
SWEDISH HOUSE

Industrial and laboratory Pump

Parsa Group company was establishes with goal of design and manufacturing of medical and laboratory equipment and Industrial peristaltic hose pump. This company is contain a researcher and industrial team and with relay on this team has taken action to production of knowledge base production.

All of the design and manufacturing process done into this company. parsa company slogan is "research and development use of experience and knowledge" and relay on this slogan is trying to design and production of high quality products.





We put our heart into pumps

A well-functioning pump helps you succeed. That applies certainly to the most important pump in life, the
human heart, but the same goes for pumps in business. In our transparent parsa group organization
all energy and attention is focused on improving the quality and performance of our pumps and
our service. We do so with energy, dedication

Industrial Peristaltic pumps

Why use the peristaltic pump?

For solving the pumping problems in industry the peristaltic pumps are very useful and their benefits are as follow.

- Resistant in Erosion and abrasion.

- Noncontact advantage between fluid and internal casing and rotor.

- Suitable for corrosive and acidic fluid.

-Low consumption of Electrical Energy.

-Positive displacement and constant pressure.

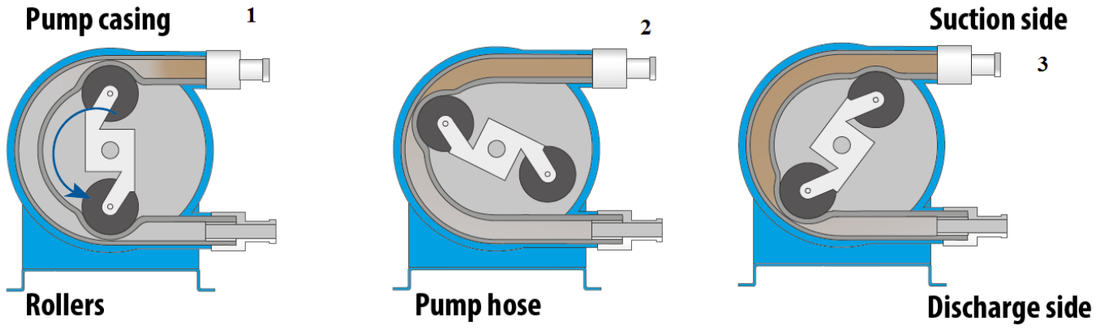
- Discharge pressure up to 18 bar.

- can pump liquids contain up to %80 inorganic solids (fines)

-can run dry.

- No seals

- High suction capability of up to %95 vacuum or 9-5 MWC and Can pump abrasive very viscous or high density fluids



Application areas

The unique design of parsa group pumps make then ideally suited to a wide range of application areas including:

-Abrasive fluids lime mixing.

- Corrosive fluids ferric chloride acids and Alkalis

- Shear sensitive fluid.

- Mining industry

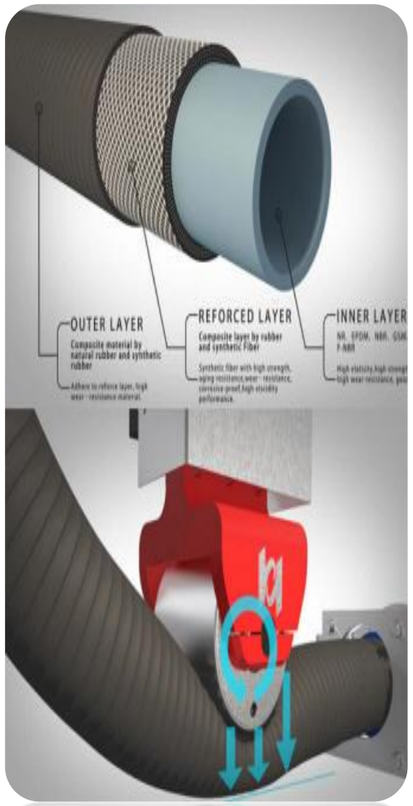
-paper and pulp

- Chemical industry

- Tile and ceramic Industry

-Food industry

And all of the industry that pump viscose corrosive and abrasive fluid.



What is the peristaltic pump?

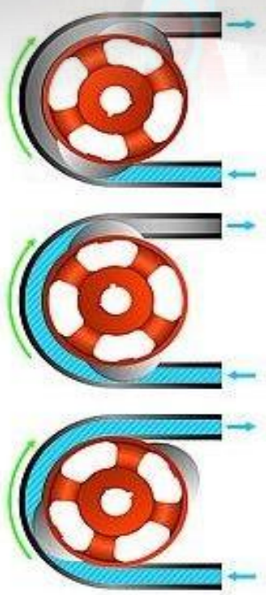
The peristaltic pump one of positive displacement pump.

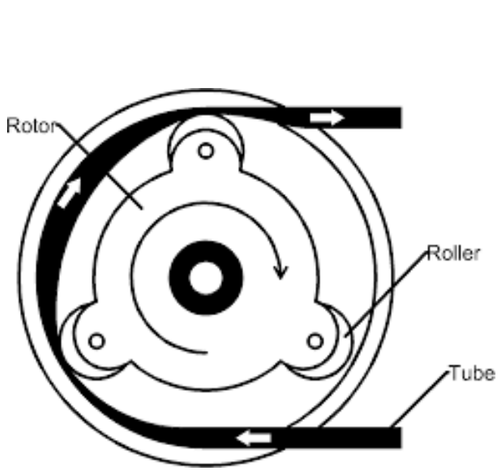
This pump work is based on compression and tension of a Rubber Hose.

-The peristaltic pump is contain a flexible hose that pumping act will be done by two or three roller or cam. This circular move lead to suction and discharge of fluids. This pump very applicable for abrasive corrosive and sterile fluids and this characteristics is due to Non-contact system between fluids and internal space of casing and rotor system. Therefore, these pumps very useful for chemical, food, medical, paint, water and military industries. In selection of suitable pump, Rotation of rotor, channel, head, hose material and driver are very important.

Flow rate and pressure:

The industrial peristaltic pump have flow rate between 1 to 250 m^3/h and pressure up to ١٦bar. The laboratory peristaltic pump have a few flow rate and pressure. These pumps flow rate is between 0.01 ml/min to 10 l/min. used flexible part in the industrial pump is called house and in the laboratory pump is tube.





According to above figure, roller systems and direction and also tube (or hose) are determine the flow rate and pressure. This parameter are shown the with increase of rotation speed by rotor and large internal diameter of hose, increase the flow rate and discharge pressure.

Selection pump with pressure 1 to 16 bar

Description	PA3010.MH	PA5010.MH	PA10010.MH	PA15010.MH	PA20010.MH	PA25010.MH
Flowrate(m^3/h)	3	5	10	15	20	25
Pressure (Bar)	3	4	4	5	5	5
Power (KW)	3	4	4	4	5.5	5.5
Hose ID (mm)	32	32	40	50	50	65
Connection (Inch)	1 1/4	1 1/2	1 1/2	2	2	2 1/2

Description	PA30010.MH	PA40010.MH	PA45010.MH	PA55010.MH	PA70010.MH	PA90010.MH
Flowrate(m^3/h)	30	40	45	55	70	90
Pressure (Bar)	6	8	8	10	12	12
Power (KW)	5.5	7.5	7.5	11	11	15
Hose ID (mm)	65	80	80	100	100	125
Connection (Inch)	2 1/2	3	3	4	4	5

Description	PA120010.MH	PA150010.MH	PA200010.MH	PA250010.MH
Flowrate(m^3/h)	120	150	200	250
Pressure (Bar)	12	15	18	18
Power (KW)	22	30	37	45
Hose ID (mm)	100	100	125	145
Connection (Inch)	4	4	5	6

Example for industrial 90 m^3/h pump

One of the heavy duty industrial pump is shown as follow. In this pump flow rate is 90 m^3/h and discharge pressure is 16 bar. Very suitable for pumping slurry and viscose liquids.

Advantages:

- Transfer optimum flow rate with respect to other pump as centrifugal.
- Easy hose connection.
- Inverter for Rotation control and
- Adaptive hose material according to liquid type.
- Robust structure and without vibration.

The hoses

Characteristics of used hoses in the peristaltic pump is as follow:

-the diameter of hose must be very exact, Constant the hose length.

- The uniform hardness according to shore standard must be optimum

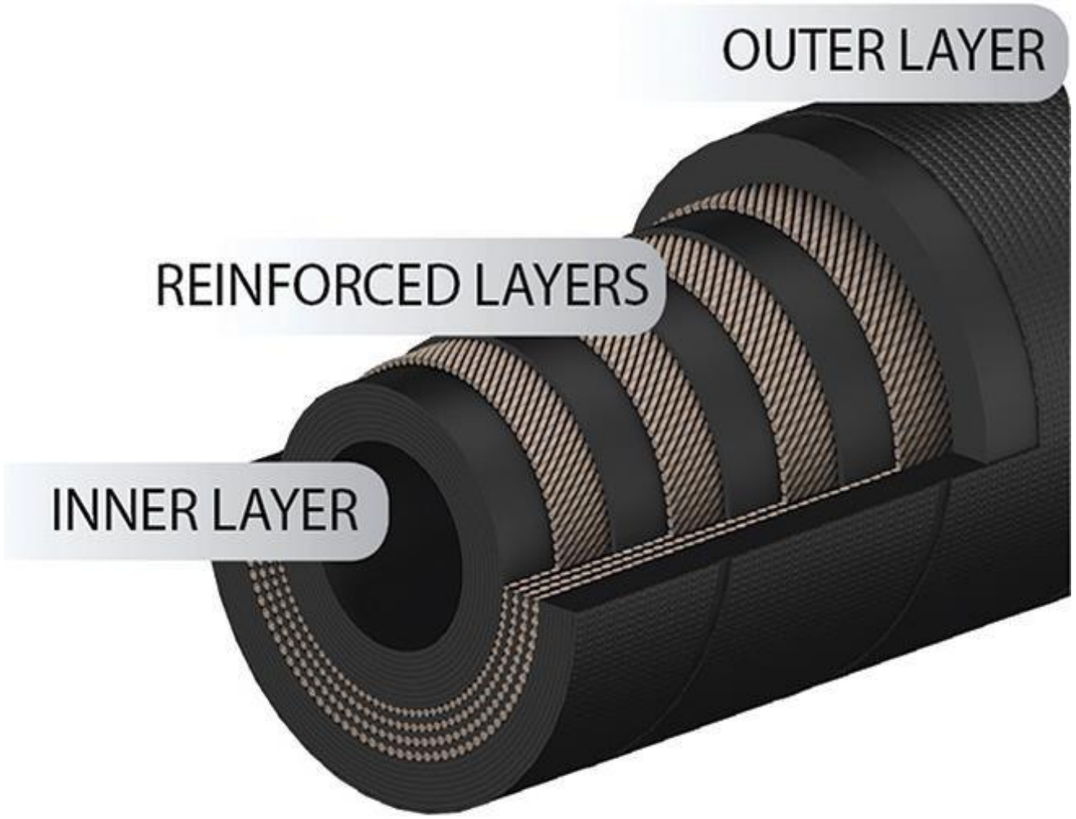
- Internal layer material must be according to the fluids

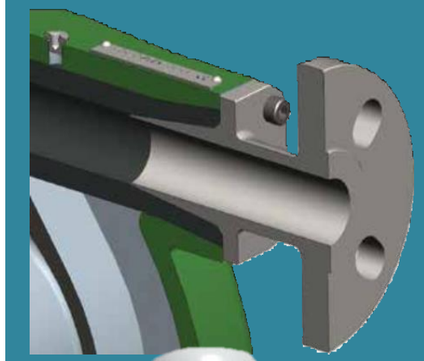
NR		White	General type for highly abrasive liquid
NBR		Yellow	Suitable for oil petrochemical
NBRF		White Yellow	FDA CFR21 & EC No. 1935/2004 approved For food industry
EPDM		Red	For acid and corrosive liquids
CSM		Green	Suitable for highly corrosive fluids

Peristaltic pumps hoses

١. The Tubes for laboratory peristaltic pump that they material is silicon, natural rubber. The material of this tube is uniform and fibreless that suitable for low flow rate and pressure.

٢. The hoses for industrial peristaltic pump that with respect two or four mechanical fiber. According to fluid type, inner layer (below figure) can be variable but outer layer due to contact with roller or can must be straight to friction.





Standard Flange

١. Fast hose changing
٢. Confident sealing
٣. Fast connection to other piping system
٤. Dry systems and protection to corrosive material

Rotor system design

١. Direct connection of rotor on the ball bearings

٢. Rotor is assembled directly on the special support

٣. Flexible filler mechanism for regulation of roller height

Gearbox system

The parsa company pumps is equipped to planetary gearbox. The advantages of planetary gearbox are as follow:
١. Low and simple maintenance
٢. Low clearance
٣. High torque performance
٤. Easy and confidante coupling
٥. Professional and industrial geometry.

Advantages of parsa group pumps:

١. Onon-contactivity whit respect to internal systems.

٢. Constant pressure.

٣. Seal less and run dry

٤. Low destruction due to slow shaft rotation

٥. New and optimum design

٦. Very flexible design with respect to customer request.

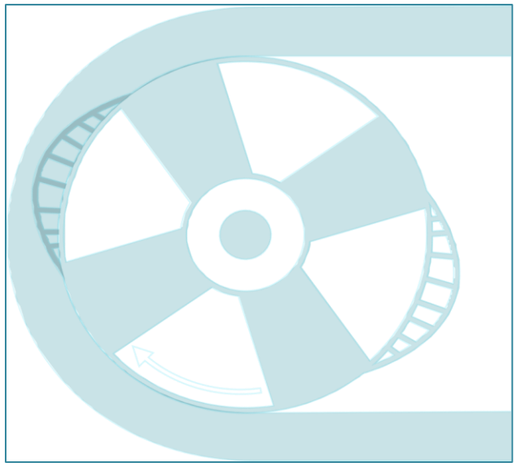


Fig.(2). Chemical fluid pumping in paper industry

Fig.(3). Pumping of primitive material for paint

Fig.(4). Alkalis fluid pumping

Fig.(5). Sludge pumping

Peristaltic pump applications:

- Metal refinery (lead, Zink, gold and silver)
- Tile and ceramic industry
- Paper industry
- Paint industry
- Oil and petrochemical
- Medical and pharmacy
-Ocean industry
-Food industry
-Sugar industry

Some of these industry are shown in fig (2) to (5).

The installed pump for silt in filtration part is shown in fig (2). Pumping these liquid because of pastiness and viscosity form, is difficult for other pumps .In fig (3), Installed pump for acidic fluid is shown. Highly corrosive fluid is very dangerous for internal parts of other pump and in time lapse lead to corrosion and failure. In fig (4), the installed pump for primary material of paint is shown. In fig (5), the installed pump for alkalis liquid (Na OH) is shown. Because of corrosive characteristics of NaOH, the peristaltic pump is very suitable.

Generally; all of the corrosive liquid, viscose and slurry fluids are pumped with peristaltic hose pump.

Contact us:

phone: +982122921322

Fax: +982179491756

Mobile: +989354609363

Email : parsagroup.pump@gmail.com

Web: parsagroupco.com

Address: Mirdamad, Mader Square, Bijan Tower, 11th floor, Unit 6, Tehran, Iran