



CONTENITORI  
ACCIAIO INOX  
MACCHINE ENOLOGICHE

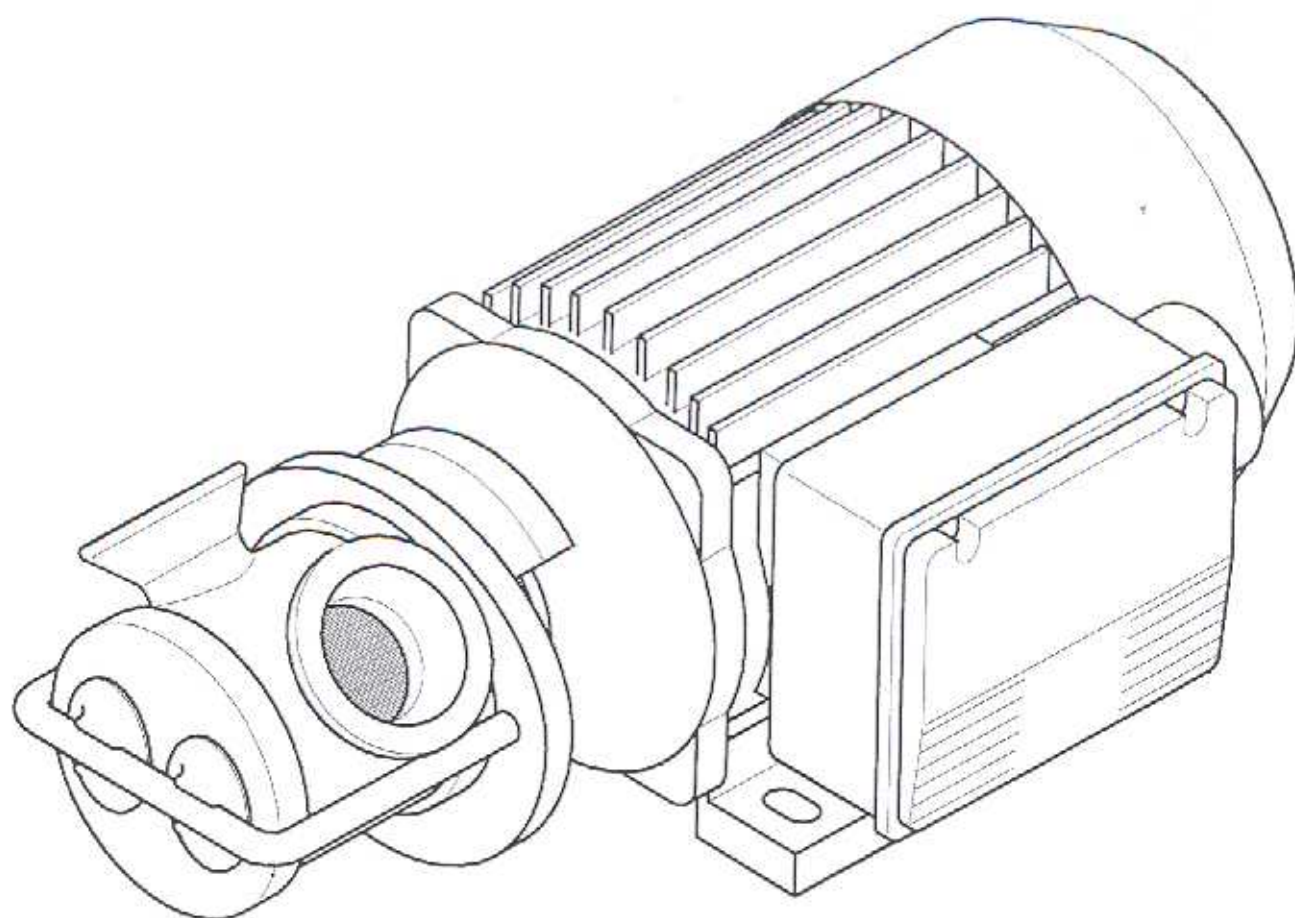
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*s.p.a.*



PORTELLE E CHIUSINI  
ACCESSORI  
ACCIAIO INOX

# COAXIAL ELECTRIC PUMP

## *Use and maintenance manual*



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# WARNINGS



- This manual must be read carefully in every detail before using the machine.
- This is an electrical apparatus with moving parts, to be kept away from children and unauthorised persons.
- Before using the machine, carefully check whether it has been damaged during transport; small breakages or dents could be detrimental to its operation.
- Do not touch electrical parts or effect electrical operations with wet hands.
- Do not use the pump to transfer either inflammable or explosive liquids, or in an explosive environment, since the motor is not explosion proof. Do not use or immerse the pump in water and protect it from humidity.
- Gloves and other protective clothing are recommended when toxic or polluting fluids and substances are used. Plan-out the working area so to protect the environment.
- The pump must not be operated dry exluding the few seconds needed for priming.
- Before beginning maintenance, isolate the power supply.
- Keep this manual with care and make it avaiable to all users of the machine.

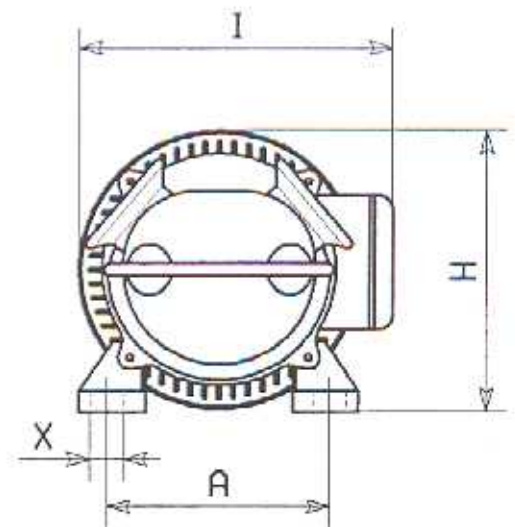
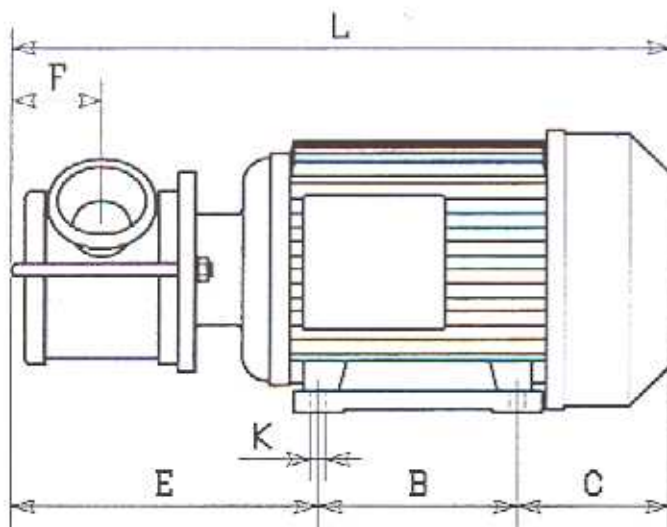


# Technical Features

Type	Weight (Kg)	Motor			Performances	
		Type*	kW	Rpm	Delivery max (lit/min)	Head max (metres)
EP-MINI G3/4"	9	MF/TF	0.37	900	17	24
EP-MINI G3/4"	9	MF/TF	0.56	1400	27	32
EP-MIDEX G1"1/4	15	MF/TF	0.56	900	64	27
EP-MIDEX G1"1/4	15	MF/TF	0.75	1400	96	30
EP-MINOR Ø 40	20	MF/TF	1.50	950	115	27
EP-MAJOR Ø 60	36	TF	1.12	470	200	16
EP-MAJOR Ø 60	31	TF	1.50	700	300	17
EP-MAJOR Ø 60	30	TF	1.86	900	375	17
EP-MAXI Ø 80	68	TF	3.36	470	600	18
EP-MAXI Ø 80	68	TF	3.36	600	830	18

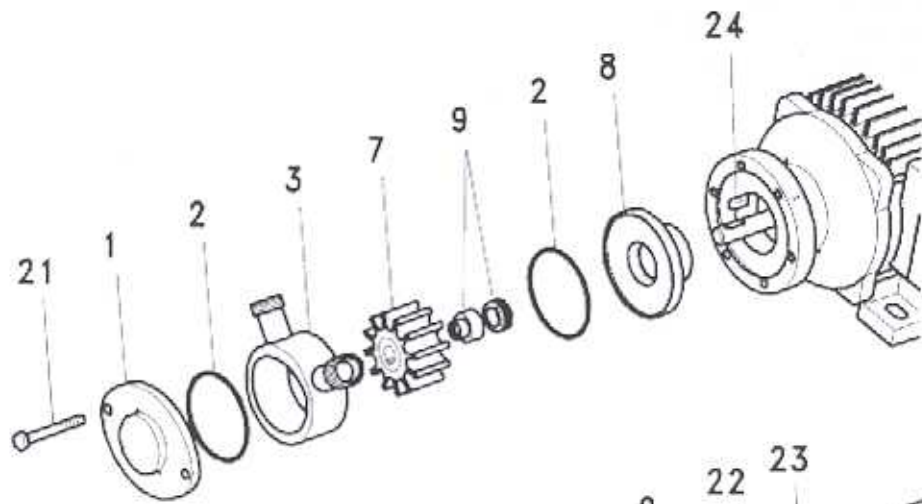
Nois <70 dBA

\* SF=Single-Phase / TF=Three-Phase

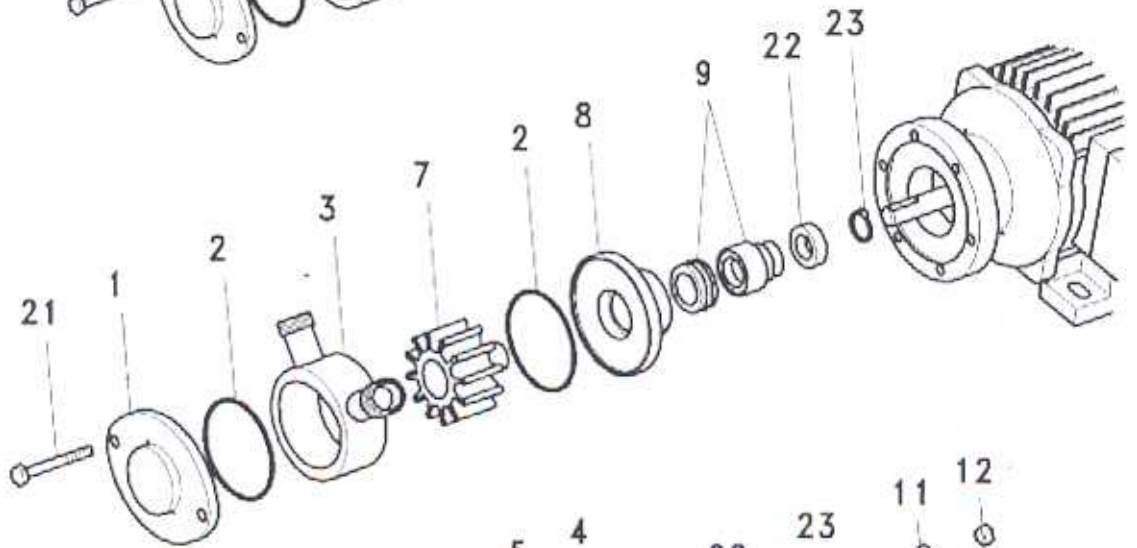


Type	L	H	I	A	B	C	E	F	K	X
EP-MINI G3/4"	276	140	180	112	90	80	106	26	7	12
EP-MIDEX G1"1/4	338	159	215	125	100	85	153	38	8	16
EP-MINOR Ø 40	420	180	238	140	125	95	200	60	10	16
EP-MAJOR Ø 60	490	198	250	160	140	107	243	65	12	21
EP-MAJOR Ø 60	514	225	275	190	140	115	259	65	12	22
EP-MAXI Ø 80	630	261	322	216	178	143	309	87	12	22

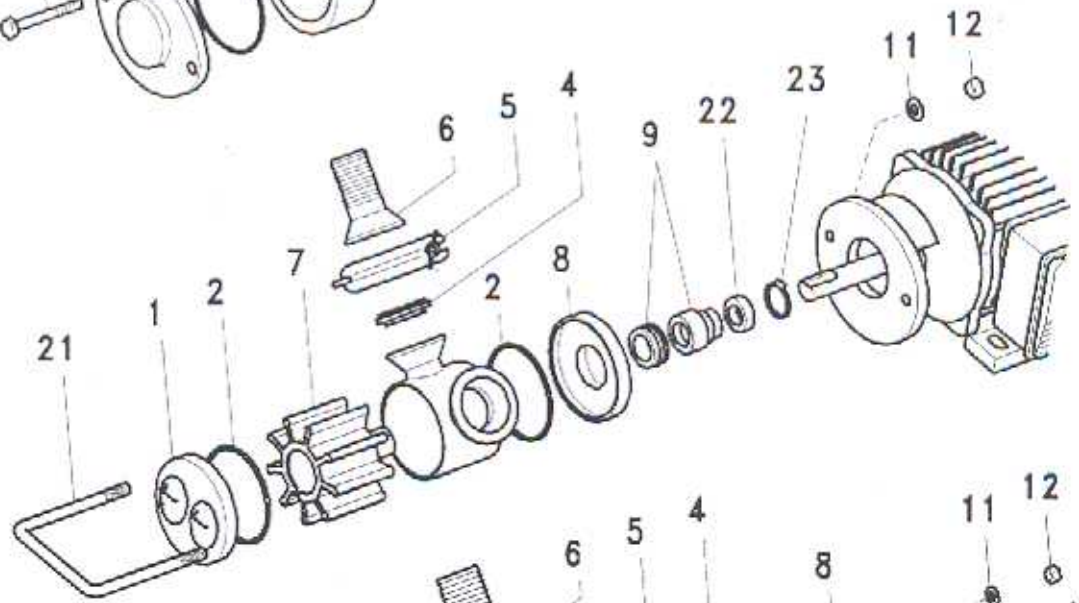
EP-MINI



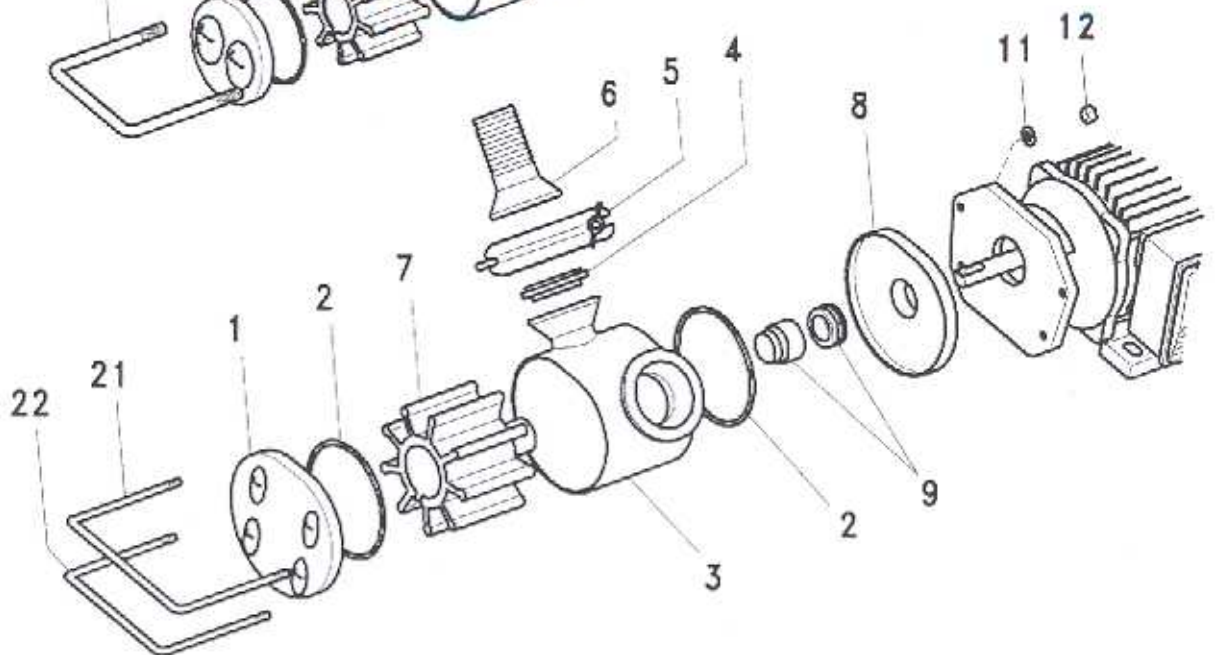
EP-MIDEX



EP-MINOR/MAJOR



EP-MAXI





**Components** - [1] Front cover Stainless steel, [2] O Ring cover, [3] Casing Stainless steel, [4] Gasket, [5] Screw clamp Stainless steel, [6] Fitting Stainless steel, [7] Impeller, [8] Rear cover Stainless steel, [9] Mechanical gasket, [11] Washer, [12] Nut, [21] Screw (EP-MINI/MIDEX) U-bolt (EP-MINOR/MAJOR/MAXI), [22] Spacing ring (U-bolt for EP-MAXI), [23] Seeger ring.

**Description** - Our stainless steel volumetric rotary pumps have a flexible impeller and are self priming upto 6 metres maximum. They are reversible with a slow running speed. The trolley/base, fittings and the pump are made completely in stainless steel AISI304 (AISI316 on request). The standard pump impeller is in natural non toxic rubber or alternatively on request in neoprene, nitrile, EPDM or silicon. The standard mechanical seal is stainless steel-graphite-NBR or on request in vidia-vidia-NBR or vidia-vidia-viton. The afore mentioned features and possible variations render these pumps extremely versatile in numerous fields. Possible applications include;

**Food Industry** - transferring of delicate liquids and also those with solids in suspension with diverse viscosity and without emulsifiers (wine, must, must and stemmed grapes, beer, fruit pulp and juices, jams, liquid sugars, glucose, milk, butter, yoghurt, eggs, oil and tomatoes in pulp and juices).

**Pharmaceutical and Chemical Industry** - transferring of starch, glues (with a water base), emulsions, glycerine, wax, detergents, soap liquids, shampoos, creams, syrups, saps, vegetable and animal fats, industrial waste water, etc.

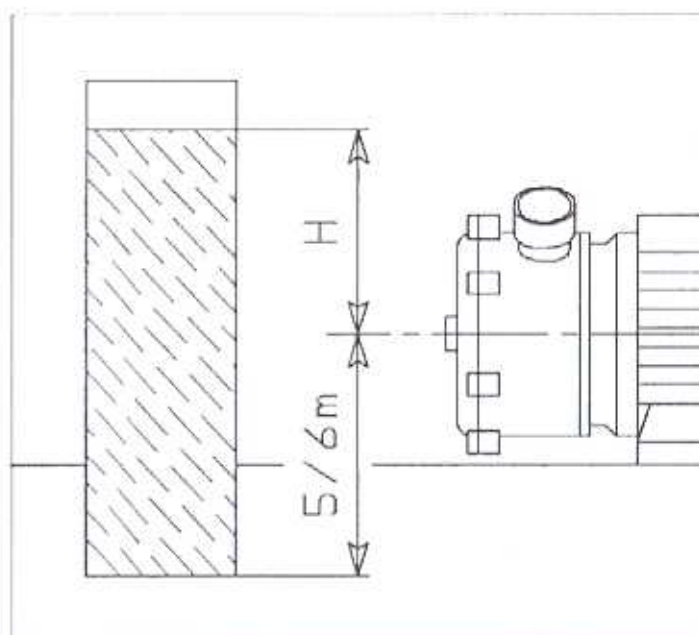
The operating temperature for natural rubber and Neoprene impeller is from +5° to 70° C, while for Silicone impeller is from +5° to 100° C. For temperatures below +5° C a special mechanical gasket is necessary (on request). More the operating temperature increases, more the global impeller performances decreases, in case of doubt for the kind of liquid to transfer consult the nearest retailer or directly the manufacturer.

**Transport** - The pump can be either manually transported or using the available devices.



# Installation and use

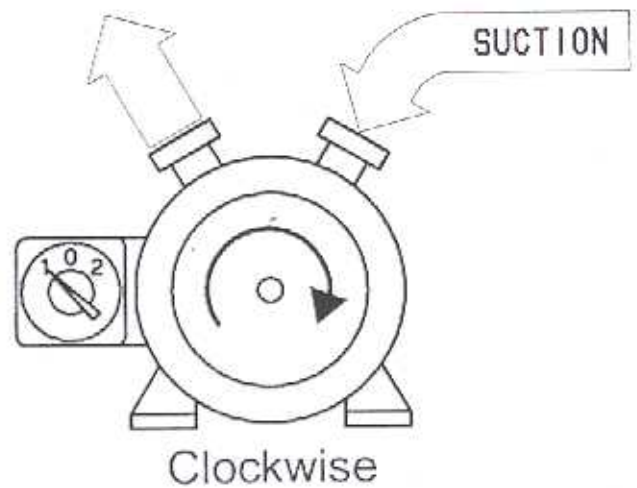
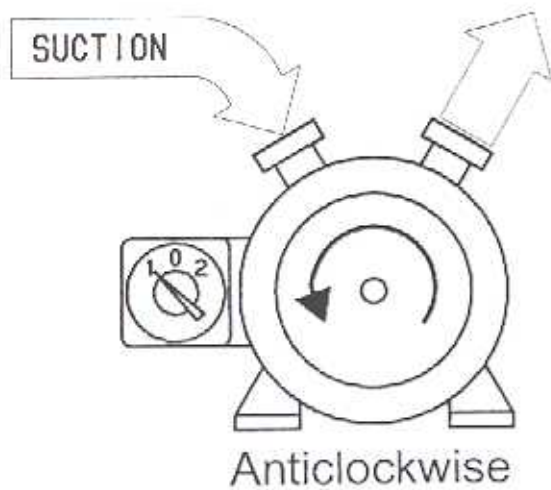
**Positioning** - The pump must not be moved while it is working, and it must be horizontal to the ground. The maximum depth of the level of the liquid to be transferred must be 5/6 metres from the axis of the pump. The available delivery Head (H) depends on the kind of pump used, and is shown on the performance table. Increasing H, reduces flow and vice versa.



**Electrical connections** - A suitable plug complying to CEE standard regulations must be connected to power cable, paying attention that electric input (A) is correct as indicated on the rating plate. Before connecting the plug to the mains control that the switchgear is in stop position (0).

**Caution:** connect the wires following the directions of the EN 60204. The yellow and green wire must be connected to the terminal in the plug which is marked with the letter (E) or the symbol  $\perp$

**How to determine the suction nozzle** - The suction nozzle is determined by the direction of rotation of the impeller. In order to determine the rotation, a simple check can be carried out. Move the switchgear from the stop position (0) to the position (1) and check the rotation of the fan and the shaft in the rear of the motor. If the rotation is clockwise, the suction nozzle will be the right one, if it is anticlockwise, the left one. Position (2) will reverse the direction of rotation and flow.

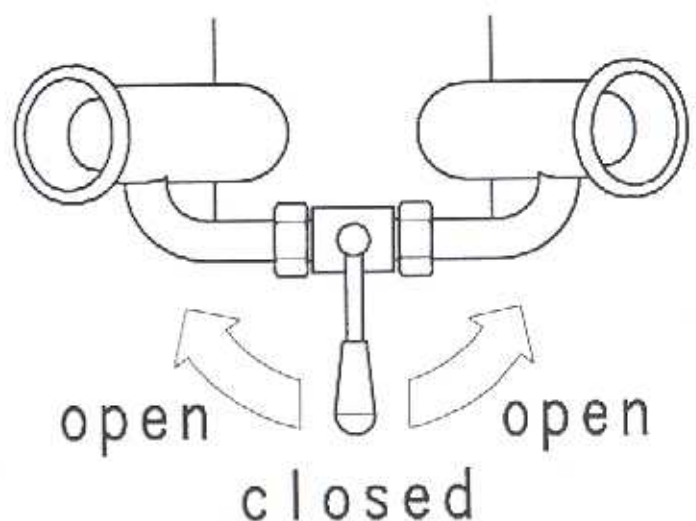


**Hose connection** - Choose hoses of a rigid or a stiffened type and suitable in diameter. Insert the hose fitting [6] into the hose and tighten with a hose clamp, connect hose to pump with screw-clamp [5] without forgetting the gasket [4] screw down well the wing nut. It is advisable to keep the priming hose and short as possible to facilitate pump priming.

**How to use** - Start the pump: priming requires only a few seconds. If the pump does not prime after 10/15 seconds, switch-off the motor and check if the suction hose has any leakage of air, maybe due to holes or to poor tightening of the collar or of the hose-clamps. A further reason could be the depth of the liquid to transfer, if it is higher than 5/6 metres: if so, a foot valve is required. Periodically check the integrity of the hose connections. When pumping is completed, stop the pump, empty the hoses of the remaining liquids and flush out to clean it (see MAINTENANCE). Isolate the power supply.

**How does the By-pass work:**

The By-pass is a valve, that connects intake and delivery and enables regulation of capacity when required. Maximum capacity is obtained with the valve fully closed, and as the valve is opened, the flow reduces. Remember to keep the By-pass closed when priming the pump.





# Maintenance

The unit does not require any special maintenance. For overhauling, replacements and repairs of either mechanical or electric parts a skilled operator is recommended together with the use of original spare parts. In such cases one needs to apply to the nearest retailer or directly to the manufacturer.

The life of the pump depends on the pressure and on the type of fluid transferred. If leakage occurs this means that the gaskets are no longer sealing correctly and must be replaced. Wear of impeller and pump body will cause reduction in the output or in overall performance. To proceed in controlling the impeller firstly, isolate power supply, unscrew the nuts [n.12] which blocks the u-bolt [n.21], slide out the front cover [n.2], checking the impellers wear; if wear is excessive impeller must be replaced.

**Cleaning** - After use, the pump should always be cleaned before being put away, in order to preserve its hygienic and mechanical performance.

- **Motor and trolley.** The motor can be cleaned externally using a dry cloth. Do not use solvents or petrol.
- **Pump.** For short periods (one or two days) operate the pump for a few minutes using clean water, but for lengthy storage-time, after emptying out, it is advisable to add a few drops of glicerine oil into the pump-body, switch the pump on and let it run for only a few seconds.