

Consult the following tables when problems are experienced, if solutions are not found in this chart or should there be any doubts, do not hesitate to contact POMPETRAVAINI or your local representative.

PROBLEM	LIST OF POSSIBLE CAUSES
Lack of, or no flow and/or pressure	1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10 - 11 - 12 - 13 - 14 - 17 - 25 - 40
Excessive flow and/or pressure	15 - 16 - 17 - 18
High power consumption	10 - 15 - 16 - 18 - 19 - 20 - 21 - 22 - 23
Excessive vibration and noise	8 - 18 - 19 - 20 - 23 - 24 - 25 - 26 - 27 - 28 - 36 - 37 - 40
Bearing overheating	19 - 20 - 28 - 29 - 30 - 36 - 38 - 39 - 42
Sealing malfunction	28 - 31 - 32 - 33 - 34 - 35 - 40 - 41

	CAUSES	SOLUTIONS
1	Pump is not primed	Repeat the priming procedure
2	Rotational speed is not adequate	Increase the motor speed in relation to the working conditions Replace impeller with one having larger diameter
3	Installation requires higher pressure than expected	Increase operating speed, if possible, or replace impeller with one of larger diameter Change the pump or increase the number of stages in case of multistage pumps Reduce the system pressure
4	Wrong direction of rotation	Change the motor direction of rotation
5	There are air pockets in the suction line	Modify the layout of suction piping
6	Air enters the suction line	Check the piping sealing areas
7	The pumped liquid is emulsified with air	Install a reservoir or tank before the pump to de-aerate the liquid
8	The suction lift or/and suction pressure is more than anticipated and therefore the pump cavitates	Reset the suction lift to the original value Increase the piping diameter Check the suction piping, the foot valve or non return valve, the filter Open completely the isolating valve in the suction piping Decrease the friction losses
9	The wear ring and/or impeller neck and/or the impeller and/or the diffusers are worn out or damaged	Overhaul the pump replacing and/or repairing the damaged components
10	Viscosity, density, or specific weight of liquid have higher values than expected	Re-establish the characteristics of the liquid as originally expected
11	Suction piping is not sufficiently submersed in the liquid, creating vortex	Increase the depth of piping or foot valve in the liquid
12	Impeller is plugged with scale deposit and/or foreign materials	Take out the impeller, clean it, free the vanes and cavities of any materials Soften the pumped liquid
13	There is entrained air in the system	Adjust the packed stuffing box or repair/replace the mechanical seal
14	Piping is plugged	Clean piping and valves Clean the filters
15	Velocity is too high	If possible, decrease the pump rotational speed
16	The required pressure of system is lower than anticipated	Adjust the flow regulating valve in discharge piping Decrease the impeller diameter Decrease the number of stages in case of multistage pumps
17	Pump is not suitable for the application	Contact POMPETRAVAINI
18	Inlet pressure is too high	Reduce the pressure, but without adjusting the isolating valve at the suction side
19	Pump/motor coupling is misaligned	Realign the coupling
20	Bearings are defective or worn out	Replace bearings
21	The power supply voltage is wrong - Motor does not operate properly	Change the motor Correct the power supply
22	The packing is too tight	Loosen the nuts of the packing gland
23	Pump seizing is experienced	Stop the pump and look for any rotor obstructions
24	The pump and/or piping are loose	Torque the bolts as required
25	Pump is worn out or damaged with excessive internal clearances	Overhaul the pump
26	The coupling rubber inserts are worn	Replace the coupling inserts
27	The impeller is out of balance due to wear, deposits and encrustation	Disassemble, clean, balance and/or replace the impeller Soften the liquid
28	Forces, moments and piping misalignment are loading the pump	Realign and support the piping

29	Oil level in bearing frame is low, oil quality is inadequate or there is lack of grease	Replace oil or grease to the normal level using proper quality lubricants
30	The power absorbed is too high	Decrease the power consumption by identifying the cause
31	Pump is running dry	Reinstate the correct working conditions
32	Pumped liquid or the flushing liquid to the seals is dirty and/or not adequate	Install a filter in the flushing lines Change flushing fluid
33	There are excessive shaft vibrations and deflections	Identify the causes and reinstate the correct working conditions
34	The pumped liquid is not adequate for the seals	Contact POMPETRAVAINI
35	The shaft sleeve is worn out	Replace the sleeve with a new one
36	The pumped flow is less than the minimum required	Increase the flow Adjust the by-pass recirculation valve or line
37	Baseplate or pump foundation is not adequate	Change or reinforce the baseplate and/or foundation following the recommended procedures
38	Too much grease in the bearings	Remove excessive grease and check the bearings
39	There is water in the bearing frame	Change bearings and replace all the lubricant
40	Incorrect assembly after pump repair	Overhaul pump and assembly following correct procedures
41	The mechanical seals are damaged	Remove the mechanical seals, overhaul or change them
42	The axial forces are too strong	Check the impeller