

## Troubleshooting table – BA series vacuum assisted pumps

**WARNING**

*In the event of a malfunction or abnormal operation, shut off the pump immediately to prevent a dangerous situation and/or damage to the unit. Below a list of “possible causes” with suggestions how you can easily solve the issue.*

Problem	Possible cause	Solution
No flow while the pump and drive are running	There is a leak in the suction pipe	Eliminate the leak
	The suction pipe or strainer is clogged	Clean the suction line
	Inlet of the suction pipe is insufficiently submerged	Submerge the suction line more deeply
	Air pockets form in the suction line	Eliminate air entrapment to the extent possible
	Vacuum pump does not draw	Inspect the condition of the vacuum pump
	Non-return valve is not closing sufficiently	Inspect the non-return valve most likely it is clogged
	Coupling between motor and pump is defective	Replace the coupling
Problem	Possible cause	Solution
Insufficient flow while the pump and drive are running	There is a leak in the suction pipe	Eliminate the leak
	The suction pipe or strainer is clogged	Clean the suction line
	A vortex appears in the water close to the inlet of the suction pipe	Submerge the suction line more deeply or use the space hopper (skippy ball) method
	The wear plate/ring is worn out	Adjust or replace the wear parts
	Foreign object in the impeller	Clean the impeller
	The impeller is damaged	Replace the impeller
	Gas or air is released from the liquid	Ensure that the liquid flows more slowly/smoothly
	Pump speed is too low	Increase diesel engine RPM or motor speed (VFD)
Incorrect direction of rotation <i>(only electric drive pumps)</i>	Reverse direction of rotation <i>(only electric drive pumps)</i>	

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Problem	Possible cause	Solution
Cavitation noise in the pump	Suction height is exceeding the NPSHr of the pump	Contact us to discuss the options
	Poor suction pipe installation	Check the BBA Pumps Installation Tips on the website or in the manual
	Velocity in the suction line is too high	Recommendation maximum 4 m/s
	Gas or air is released from the liquid	Ensure that the liquid flows more slowly/smoothly into the pump
	Pump is running too far from BEP in the performance curve	Check the specification sheet or performance curves of the pump unit
Problem	Possible cause	Solution
Pump is demanding abnormal amount of power (drive is overloaded)	Pump speed is too high	Decrease diesel engine RPM or motor speed (VFD)
	Incorrect direction of rotation ( <i>only electric drive pumps</i> )	Reverse direction of rotation ( <i>only electric drive pumps</i> )
	The shafts are not in alignment with one another	Align the unit
	Rotating parts are rubbing against stationary parts	Adjust everything and align if necessary
	Inadequate lubrication or insufficient lubricant in the bearing housing, possibly as a result of a leak; can be identified by higher than normal temperature	Follow good service plan
	In this application the pump is not functioning in the intended range	Make changes to the piping system, if possible Otherwise: use a different type of pump
	The liquid has a higher s.g. or viscosity than that for which the pump is intended	Change temperature of liquid, if possible. Otherwise: use a different type of pump

For electric motor or diesel engine malfunctions, see the manufacturer's documentation.