



2.F.5 Troubleshooting

No Discharge	Below Capacity	Irregular Discharge	Lost Prime	Pump Stalls at Startup	Pump Overheats	Motor Overheats	Excessive Power Draw	Noise & Vibration	Pump Element Water	Seizure	Causes	Solution
X											Incorrect direction of rotation	Reverse Motor
X											Pump not primed	Expel gas from supply line and pumping chamber to introduce liquid.
X	X	X	X					X			Insufficient NPSH available	Increase supply line diameter. Increase suction head. Simplify piping and/or reduce length. Reduce pump speed. Decrease liquid temperature. Check effect of increased viscosity on available and permitted power inputs.
	X	X	X					X			Product vaporizing in supply line.	Check effect of increased viscosity on available and permitted power inputs.
X	X	X	X					X			Air entering supply line.	Remake pipe work
	X	X	X					X			Gas Supply	Expel gas from supply line and pumping chamber to introduce liquid.
X	X	X	X					X			Insufficient head above supply vessel outlet	False product level. Lower outlet position. Increase submergence of supply line.
		X	X					X			Foot valve strainer obstructed or blocked.	Service Fittings.
	X		X	X	X	X	X	X			Liquid viscosity above rated figure.	Decrease pump speed. Increase liquid temp.
	X										Liquid viscosity below rated figure.	Increase pump speed. Decrease liquid temp.



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					X			X	X	X	Liquid temp. above rated figure.	Cool the liquid prior to pumping
				X		X	X				Liquid temp. below rated figure.	Heat the liquid prior to pumping
								X	X	X	Unexpected solids in product.	Clean the system. Add strainer to supply line.
	X	X	X	X	X	X	X	X	X	X	Delivery pressure above rated figure.	Check for obstruction. Simplify supply line.
											Seal flushing inadequate	Check that fluid flows freely into seal. Increase flow rate.
	X					X	X	X			Pump speed above rated figure.	Decrease pump speed.
											Pump speed below rated figure.	Increase pump speed.
	X				X	X	X	X	X	X	Rotor case strained by pipe work.	Align pipes. Add flexible pipes or expansion fittings.
					X	X	X	X			Belt Drive Slipping	Tighten belt to specified tension.
								X			Flexible coupling misaligned.	Adjust flange alignment.
					X	X	X	X	X	X	Insecure pump drive mountings	Add lock washers and retighten.
				X	X	X	X	X	X	X	Shaft bearing wear or failure.	Call Vogelsang or distributor for advice.
					X	X	X	X		X	Worn unsynchronized timing gears	Call Vogelsang or distributor for advice.
				X	X	X	X	X	X	X	Gear case oil level incorrect.	Refer to oil level instructions.



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X	X											Metal to metal contact of pumping element.	Check rated and duty pressures.
		X				X						Worn pumping element.	Install new components
		X					X					Relief valve leakage	Adjust pressure setting. Examine & clean seating surfaces. Install new components.
		X					X					Relief valve chatter	Check water sealing surfaces & guides. Install new components.