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Dry Screw Pump Troubleshooting Guide

PROBLEM	PROBABLE CAUSE	SOLUTIONS
Poor vacuum performance	Clogged inlet filter and/or strainer.	Clean or change inlet filter and/or strainer.
	Too much screw tolerance.	Check screw tolerance and reset the clearance (reset the timing gear).
Motor overload	Clogged inlet filter and/or strainer.	Clean or change inlet filter and/or strainer.
	Foreign matter is caught in the dry screw pump.	Check screw clearance and reset (reset the timing gear) if needed. If the screws and/or casing are damaged by foreign material, replace the screw and/or casing.
	Significant increase of inlet pressure.	Check the pressure differential between the inlet and outlet of the dry screw pump
	Interference between the screws.	Reset the screw clearance (reset the timing gear)
	Interference between screw and casing.	Determine cause of interference.
	Blocked discharge nozzle or piping and increased back pressure.	Drain and clean the discharge nozzle and piping.
Overheating	Excessive lubricant in gear box (front-end cover).	Check oil level and adjust the oil level if required.
	High dry screw pump inlet temperature.	Reduce the inlet temperature
	High compression ratio.	Check the differential pressure between the inlet and discharge pressure.
	Interference between screws and casing.	Determine cause of interference.
	Problem with cooling liquid flow.	Checking cooling water flow. Clean cooling liquid lines and dry screw pump cooling jackets.
	Blocked discharge nozzle or piping and increased back pressure.	Drain and clean the discharge nozzle and piping.
Knocking	Incorrect positioning of timing gears and screws.	Reposition timing gears and screws
	Improper assembly.	Reassemble the dry screw pump
	Damaged gears due to overload or improper lubrication.	Replace timing gears.
	Abnormal rise of inlet pressure.	Search for the cause.
Bearing or gear damage	Improper lubrication.	Change oil. Check time gears for damage and replace if required.
	Low lubricant level.	Add oil to the correct level. Check timing gears for damage and replace if required.