

LANDMARK MINING & MINERALS - SUPASLURRY TROUBLESHOOTING GUIDE

 SUPASLURRY Reliability Ruggedness Efficiency Durability Slurry Pumps		SYMPTOMS										 Landmark Mining & Minerals Slurry Pumps • Valves • Mineral Processing	
		No Liquid Delivery	Insufficient Capacity	Intermittent Operation	Premature Wear Part Failure	Excessive Power Demand	Vibration/Noise	Gland Leakage	Short Bearing Life	Loss of Prime	Short Gland/Seal Life		
POSSIBLE FAULTS													POSSIBLE REMEDIES
Mechanical System	Bearing Overheating SP1,SP4,MS1,MS2,MS3,MS4,MS5,MS6,MS7,MS8					X	X		X				MS1-Check Pulley/Coupling Alignment
	Seal Leaking SP1,SP5,MS5,MS7		X	X				X		X	X		MS2-Check Pump Curve For Speed and Power Limitations
	Direction Of Rotation Of Impeller MS9	X	X										MS3-Check Lubrication Specifications
	Excessive Seal/Gland Wear SP2,MS5,MS7		X					X		X	X		MS4-Check Belt Tension
	Incorrect Seal Fitment/Materials MS7,HS5		X		X			X		X	X		MS5-Bearings Worn
	Wear Parts Need Replacing MS7	X	X	X						X			MS6- Possible Contamination of Bearings
	Impeller Incorrectly Set MS7		X	X	X								MS7-Strip and Check Pump Parts to Spec
	Incorrect Assembly/Parts Used MS2,MS7	X	X	X	X	X	X	X					MS8-Impeller Out of Balance
	Blockage of Impeller MS7	X	X	X			X						MS9- Check Pump Rotation/Motor Polarity
	Overloading of Drive MS1,MS2,MS4,MS6,M10,MS11,SP4					X			X				MS10- Check Liquid S.G Fluctuations
	Parts Incorrectly in Contact/Rubbing M7				X	X	X						MS11-Check Impeller Diameter
	Bent Shaft MS1,MS5,MS7						X	X	X	X	X		MS12-Check Pump Speed
Suction Problems	Air In Pipeline or Leaks SP2,SP5,SP6	X	X	X			X		X	X			SP1-Check NPSH Capability
	Pipeline Too Long/Small Diameter SP1	X	X	X			X		X	X			SP2- If Pump Is Above Liquid Level Closer to Pump Level
	In-adequate Suction Submergence SP2,SP6,SP7	X	X	X			X		X	X			SP3-If Liquid is above pump,increase liquid level
	Suction Line Blocked SP6	X	X	X			X		X	X			SP4-Check Pump Curve
	Excessive Suction Lift SP1,SP2,SP3,SP4	X	X	X			X		X	X			SP5-Check Suction Pipeline and Design and for possible
	Pump Not Properly Primed SP5,SP6	X	X	X			X			X			Blockage/Leaks
	Air Leak Into Gland SP1,SP2,SP3,HS6,MS7		X	X			X			X	X		SP6-Prime Pump and Suction Pipeline
	Supply Hopper Overflow SP1,SP7,MS2	X	X	X		X	X						SP7-Pump Speed too high/Draining Suction
	Pump Is Cavitating SP1,SP2,SP3,SP4,SP5,SP6	X	X	X		X	X		X		X		
Hydraulic System	Supply Tank Empty HS1,HS2,HS3,HS5,M12	X	X	X			X			X			HS1-Control Suction Conditions
	Air or Gas in Liquid SP1,HS2	X	X	X			X			X			HS2- Check for Air Pockets,Air Ingress through
	Obstructions in Lines or Pump HS2,HS3,HS7,MS12	X	X	X			X						Suction Line
	Suction or Discharge Valves Closed	X	X	X									HS3-Check Pipelines and Pump Housing
	Viscosity/S.G too High HS5,HS7	X	X	X	X	X			X				HS4-Check Liquid S.G.Viscosity to design Criteria
	System Head Too Low HS5					X			X				HS5-Check System Head/Flow Criteria
	System Head Too High HS5	X	X	X				X					HS6- Check Seal/Material Criteria
	Excessive Seal Leakage HS6,SP1		X					X	X		X		HS7-Check Pipeline Design and Settling Velocity
	Pump Rotation HS9	X	X										HS8-Check incoming Voltage Supply
	Silting and Clogging of Pipeline/Pump HS2,HS5,HS7,MS7	X	X			X					X		HS9-Check Rotation and Pulley Configuration
	Low Pump Speed HS5,HS8	X	X	X		X							
	High Pump Speed HS5,HS8				X	X							