

FIELD INSPECTION CHECKLIST	DOC ID: CHK-VAC-2021-12	REV: 1.1
EQUIPMENT: Rotary Vane / Roughing Vacuum Pump	DATE: August 14, 2021	SERIAL #: _____
TECHNICIAN: Kadeem Manning (Tier II Vac Tech)	LOCATION: _____	RUN HOURS: _____

Vacuum Pump Drive & Mechanical Inspection

Quick-Reference Checklist

Mandatory Field Verification Tasks for Belt Drive Tension, Shaft Coupling, Seals, Motor Electricals, and Valve Deck Maintenance

#	Inspection Subsystem & Specific Task	Pass Target Benchmark	Status / Value
1	Safety LOTO: Disconnect breaker & apply lock/tag	Zero energy verified w/ meter	[] Pass [] Fail
2	Drive Guard Inspection: Check mounting bolts & integrity	Bolts torqued; guard intact	[] Pass [] Fail
3	Drive Belt Condition: Check for cracks, glazing, or oil	No fraying/cracking/glazing	[] Pass [] Fail
4	Belt Tension Check: Measure mid-span deflection	1/4" to 1/2" under 5-8 lbs force	____ in. [] Pass
5	Pulley Alignment: Straightedge check across sheaves	Parallel & angular alignment	[] Pass [] Fail
6	Coupling Spider Insert: Check elastomer for wear/cracks	Zero cracking or compression	[] Pass [] Fail
7	Manual Shaft Rotation: Turn pump shaft 3 full turns by hand	Smooth rotation; no binding	[] Pass [] Fail
8	Shaft Seal Inspection: Check shaft housing for oil weeping	Zero fluid leakage / weeping	[] Pass [] Fail
9	Base Mounting Bolts: Verify base plate & anti-vibration pads	Torqued tight; pads intact	[] Pass [] Fail
10	Motor Cooling Fins: Clean dust/oil buildup from housing	Unobstructed air channel	[] Pass [] Fail
11	Motor Winding Test: Megohmmeter insulation test	Resistance > 5 MΩ	____ MΩ [] Pass
12	Valve Deck Cleaning: 6-month clean of flapper valves & deck	Zero carbon buildup/pitting	[] Pass [] Fail
13	Solenoid / Anti-Suckback: Test valve closure response time	Closure time < 20 ms	[] Pass [] Fail
14	Motor Amperage Audit: Clamp meter test at base vacuum	Matches nameplate FLA ±5%	____ Amps [] Pass
15	Base Vacuum Reach: Measured at inlet w/ Pirani gauge	< 100 mTorr (10–20 microns)	____ mTorr [] Pass

TECHNICIAN FIELD NOTES & DEFECT REMEDIATION:

Lead Tech Signature: _____	Name: Kadeem Manning (Tier II Tech)	Date: 08/14/2021
Supervisor Signature: _____	Name: Mark Tigges (Field Ops Mgr)	Date: 08/14/2021