



MVT Venturi Perchloric Acid Exhaust System

OPERATION CHECK LIST / START-UP REPORT

Project Name: _____

M.K. Plastics Representative Name: _____

Venturi Size #: _____

Venturi Serial #: _____

Date of Start-Up: _____

Electrical (Induction Blower)

Voltage/Cycle/Phase: _____ Motor HP: _____ Nameplate Amperage: _____

Check Max. Supply Amperage	<input type="checkbox"/>	Main Supply Voltage	L1-L2	<input type="text"/>	Motor Amps	L1-L2	<input type="text"/>
			L1-L3	<input type="text"/>		L1-L3	<input type="text"/>
			L2-L3	<input type="text"/>		L2-L3	<input type="text"/>

Operation Check List (Venturi Stack & Accessories)

Verify that proper safety precautions have been followed:

- Electrical power must be locked off.

Check Venturi stack components (above roof):

- | | |
|--|---|
| <input type="checkbox"/> Venturi stack installed on roof curb & secured | <input type="checkbox"/> If required, check guy-wire collar connection and cable tension from stack |
| <input type="checkbox"/> Stack extensions installed & flange connection secured (if applicable) | <input type="checkbox"/> Primary spray nozzle assembly (below curb cap) is not damaged & access to waterline connection |
| <input type="checkbox"/> Stack extension heating cables connected at flange connection (if applicable) | <input type="checkbox"/> Water pipe & heating cable (below curb cap) is accessible for connection |
| <input type="checkbox"/> Stack extension water line pipes coupled at flange connection (if applicable) | <input type="checkbox"/> Heating cable from stack is plugged to 120V power |

Check ducting from hood to Venturi stack (below roof):

- | | |
|--|--|
| <input type="checkbox"/> Duct material per contract specifications | <input type="checkbox"/> Ductwork is braced & secured |
| <input type="checkbox"/> All flange connections are secure from hood to stack | <input type="checkbox"/> Ducting attached to fume hood collar & sealed |
| <input type="checkbox"/> *Suitable gasketing material is used between flange connections | <input type="checkbox"/> Check accessibility for maintenance to the washdown components on the ducting |
| <input type="checkbox"/> Auxiliary washrings & spray nozzle assemblies are per the contract/submittal drawings | |

*Neoprene, EPDM, PTFE or Teflon are suitable

Check auxiliary washdown components, timer, valves & power (if supplied):

- Washdown timer installed & electrical wiring per the submittal documents
- Correct power voltage to timer panel, valves, motor starter (refer to submittal documents)
- Output wiring from timer panel to valves & motor starter (refer to submittal documents)
- Water line connections to/from solenoid valves, drainage & to washrings/nozzles
- Correct sequence of water line valve to washing/nozzle (refer to submittal documents)
- Check water pressure (min. 40 psi) & GPM flow rates (refer to submittal documents)
- Verify washdown timer panel PLC, set time & dates and verify against submittal questionnaire for sequence of operation

Operation Check List (Induction Blower)

Verify that proper safety precautions have been followed:

- Electrical power must be locked off.

Check induction blower mechanism components:

- Duct system complete, connections checked
- Check for debris in & around fan
- Check for free movement of fan
- Bearings are properly lubricated
- Rotate impeller by hand to verify it has not shifted during transit
- Fan has been leveled
- Check fan drain for plug or valve (if supplied)
- Grounding strap properly grounded (if supplied)
- Check position of guards/weather cover to prevent rubbing
- Check access door is secured

Check induction blower electrical components:

- Motor is wired for proper supply voltage
- All leads are properly grounded
- Motor is properly grounded
- Wiring checked

Check system accessories:

- Balancing control damper
- Duct connection to Venturi stack
- Check vibration isolators spring tension & clearance
- Fan isolators fastened to fan rails
- Duct/stack flexible connector

Trial "bump":

- Turn on power just long enough to start assembly rotating
- Check drive alignment & tension
- Run unit up to speed
- Check rotation of the wheel, make sure it is the same as indicated by the arrow marked **Rotation**
- Correct any problems which may have been found. Perform check list again until operating properly

Check Induction Blower hardware:

- Setscrews attaching wheel hub to shaft (checked for tightness)
- Setscrews in drive sheaves or coupling (checked for tightness)
- Nuts holding guards/weather cover (checked for tightness)
- Bolts in taper-lock bushings (checked for tightness)
- Nuts on the inlet sleeve (checked for tightness)
- Nuts & bolts holding the motor (checked for tightness)
- Grease line connections (if supplied) (checked for tightness)
- Nuts & bolts holding the fan bearings (checked for tightness)

Note: after one week of operation, check all nuts, bolts and setscrews and tighten if necessary.

Induction Blower operational checks:

- | | |
|--|---|
| <input type="checkbox"/> Check for excessive vibration | <input type="checkbox"/> Check vibration isolator movement during operation |
| <input type="checkbox"/> Check for unusual noise | <input type="checkbox"/> Check for bearing noise |
| <input type="checkbox"/> Check for squealing (improper belt alignment/tension) | <input type="checkbox"/> Check if balancing damper blade open & close |

Note: if a problem is discovered, immediately shut the fan off. Lock out all electrical power and check for the cause of the trouble.

Operation Check List (Complete Venturi System)

- | | |
|--|--|
| <input type="checkbox"/> Test run entire system, check for flow & pressure | <input type="checkbox"/> Initiate a trial washdown (manually or automatically) |
| <input type="checkbox"/> Adjust balancing damper (discharge of blower) if required | <input type="checkbox"/> Verify sequential washdown from top-to-bottom |
| <input type="checkbox"/> Check for vibration & excessive noise in ductwork | <input type="checkbox"/> Check for leaks in ducting & around auxiliary washdown components |

<input type="checkbox"/> Verify valve operation (a flow sensor on the discharge side of the valve may be required)	<input type="checkbox"/> Blower shuts off prior to a wash?
<input type="checkbox"/> Blower turns on after a wash or remains off? (Check submittal questionnaire for requirement)	<input type="checkbox"/> Check for leaks in ducting & around auxiliary washdown components and valves

Note: if a problem is discovered, immediately shut the fan off. Lock out all electrical power and check for the cause of the trouble.

Comments (include problems & repairs):

Please indicate the name of 'party' who will be responsible for equipment maintenance from this point forward:

I have clearly communicated the maintenance requirements to that 'party':

Technician Signature: _____

Date: _____