



The VRC requires minimal attention on a regular basis to prevent equipment failures or accelerated wear and tear. VRCs operating during multiple daily shifts need to be maintained more often. This section is provided for the assistance of qualified and trained service technicians only and is not intended for use by untrained or unauthorized service personnel. Make sure all steps are completed. A record of regular, properly conducted preventive maintenance provides a running history of any issues the VRC may have. The reports will identify trends, and helps anticipate expected wear and tear repairs. Sign and return to PFlow Industries, Inc. Parts & Service Department via e-mail to psd@pflow.com

NOTICE

ASME B20.1 defines a qualified person as a person who, by possession of a recognized degree or certificate of professional standing, or by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve problems relating to the subject matter and work.

WARNING



- If any defects relating to operating safety and reliability are detected or if any damage occurs, the VRC must be taken out of operation immediately.
- Lockout/tagout the VRC before performing maintenance on electrical components. De-energize any circuit before work is begun.
- Take appropriate measures for safely working at heights.
- Make sure that no persons or objects are within the range of any moving parts of the VRC.
- Climbing, sitting, walking, or riding on equipment while the equipment is in operation could result in death or serious injury.
- If this VRC needs to be modified in any way, contact PFlow Industries, Inc. for assistance. Do not make any unauthorized changes.
- Before the VRC is put into operation, all parts must comply with all relevant health and safety directives and regulations.
- Falling Hazard! Close all gates before the carriage is moved. Never leave the VRC unattended with the gates in the open position. Never close gates when a person is on the carriage or within the fenced area.
- Entanglement hazard! Secure long hair, wear snug-fitting clothing, and avoid wearing jewelry while using the VRC.

Section 13 | M Series Preventive Maintenance and Schedule Checklist



MATERIAL HANDLING SOLUTIONS

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 Milwaukee, WI 53209

| ✓ | Action | How Often |
|---|--|-----------|
| | Verify overall operation. | monthly |
| | Verify that all level stops are flush with the floor level. Adjust as necessary. | monthly |
| | Verify that all areas under and around the VRC are clean. | monthly |
| | Verify that all gates and interlocks are functioning properly. | monthly |
| | Verify that all electrical components are undamaged. | monthly |
| | Verify that all gates and enclosures are undamaged and properly installed. | monthly |
| | Verify that all push-button stations and Emergency Stops (e-stops) are functioning on each level. | monthly |
| | Identify any unsafe condition. Document and report the condition immediately to the customer and then PFlow Industries, Inc. Parts & Service Department. Do not allow the VRC to operate when unsafe conditions arise. | monthly |
| | Verify that all nuts and bolts are tight. Adjust as necessary. | 3 months |
| | Verify that all moving components are functioning properly. | 3 months |
| | Inspect and lubricate all chains (e.g., lift, tensioner, gate) with non-detergent, petroleum-based SAE 30 oil. Inspect for wear, rust, bent, cracked, or binding links. | 3 months |
| | Inspect limit switches and operation. Adjust as necessary. | 3 months |
| | Verify that the chain sprocket is centered over the chain tube. Adjust the position if necessary. Apply Loctite® #242™ Blue Threadlocker to the setscrew. Tighten and torque setscrew. | 3 months |
| | Inspect all additional options and accessories (e.g., DeckLocks, maintenance pins) and operation. Adjust as necessary | 3 months |
| | Inspect the wheels and guide rollers on the wheelblock for rotation interference and wear. | 3 months |
| | Verify that all electrical connections are tight. | 3 months |
| | Verify that all tensioners are properly adjusted. Adjust as necessary. | 3 months |
| | Verify that the carriage is level. Adjust as necessary. | 6 months |
| | Inspect all welding, bracing, and anchoring for structural integrity. | 6 months |
| | Inspect all chain sprockets for wear. | 6 months |
| | Lubricate the pillow block bearings on the drivebase with lithium axle grease. Apply Loctite® #242™ Blue Threadlocker to the setscrews. Tighten and torque setscrews. | 6 months |
| | Inspect the gear reducer oil level and replenish as necessary. The minimum acceptable oil level is 0.15" (4mm) below the oil level hole. | 6 months |
| | Inspect the motor and brake. Measure and record the air gap on the brake. | 12 months |
| | Inspect the wheels, roller guides, and safety cams for deterioration. | 12 months |
| | Replace gear reducer mineral oil every 10,000 operating hours or every two years. | 2 years |
| | Replace gear reducer synthetic oil every 20,000 operating hours or every four years. | 4 years |

Additional Notes or Follow-up Requirements

| | |
|---------------------|---------------------------|
| Customer signature: | Date work completed: |
| Name/Phone: | Authorized Technician(s): |
| Title: | Name: |
| E-mail: | Name: |