



LUBRICATION CREATES VALUE



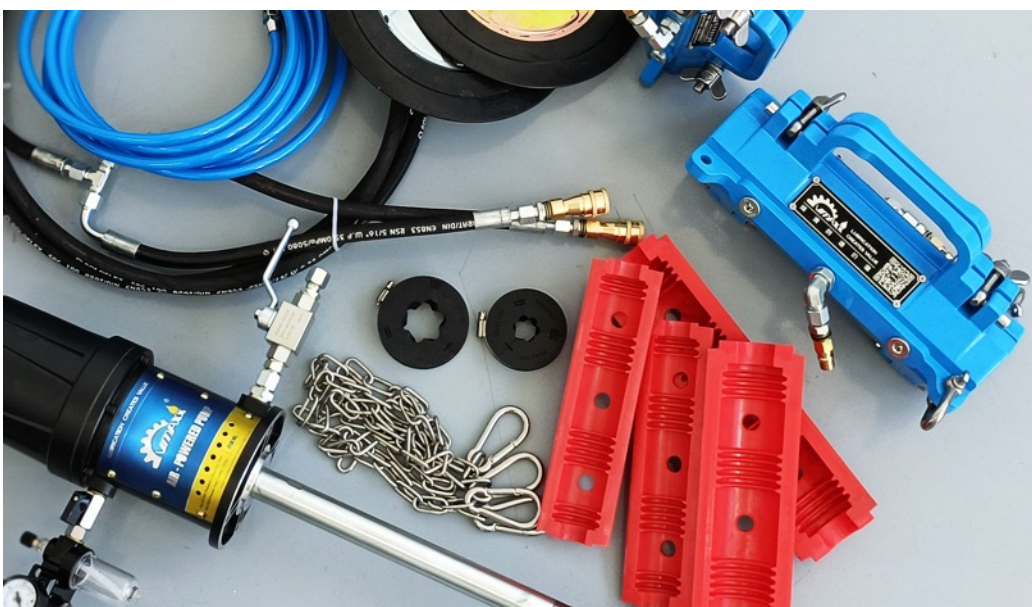
VMAXX®

Wire Rope Cleaner & Lubricator Kit

Instructions & Manuals

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PREFACE



VMAXX® wire rope cleaner and lubricator kit, in a fast and safe way, effectively clean, remove scale and lubricate the wire ropes, greatly improving the service life of wire ropes and the safety in use.

Friction and corrosion will shorten the effective life of wire ropes, resulting in potential safety hazards in production operations. Frequent shutting down inspection or replacement of wire ropes will result in more time and cost for owners. In addition to the obvious wear and damage on the surface of the wire rope, the corrosion and wear of the inner and core of the wire rope are more secretive and dangerous, resulting in a more serious safety hazard in the production operation.

VMAXX® groove cleaner is used to remove the dirt, gravel and used grease on the wire rope before the wire rope passes through the lubricator. In addition to reducing the wear and erosion of foreign matters on the wire rope, it can also improve the permeability of new grease. At the same time, the lubricant under high pressure is directly injected into the inner part of the wire rope and the rope core to make it more thorough and effective maintenance. Prolong the service life of wire rope and avoid hidden trouble. VMAXX® wire rope cleaning and lubricator kit, instead of manual lubrication of slow, inefficient rope maintenance, and at 1000 meters per hour for the diameter of 8 mm to 80 mm of wire rope to provide quick and effective cleaning and lubrication.

Application

Marine- mooring and anchor ropes, deck winches, quayside cranes, ROV umbilical, submarine wire ropes, submarines, cargo cranes, mine hoists, oil well platforms and ship loaders

Industry- bridge crane, mobile crane, NDT service, mining hoist rope, lifting rope, wire rope manufacturer

Features

- ✓ Fast and efficient .
- ✓ Increase operator safety.
- ✓ Easy to use with any wire rope up to 8mm ~ 80mm.
- ✓ Helps to prevent corrosion.
- ✓ Protects the wire ropes.
- ✓ Penetrates the wire rope core.
- ✓ Reduces waste and contamination.
- ✓ Robust design for harsh environments.

WIRE ROPE CLEANER & LUBRICATOR KIT COMPONENTS

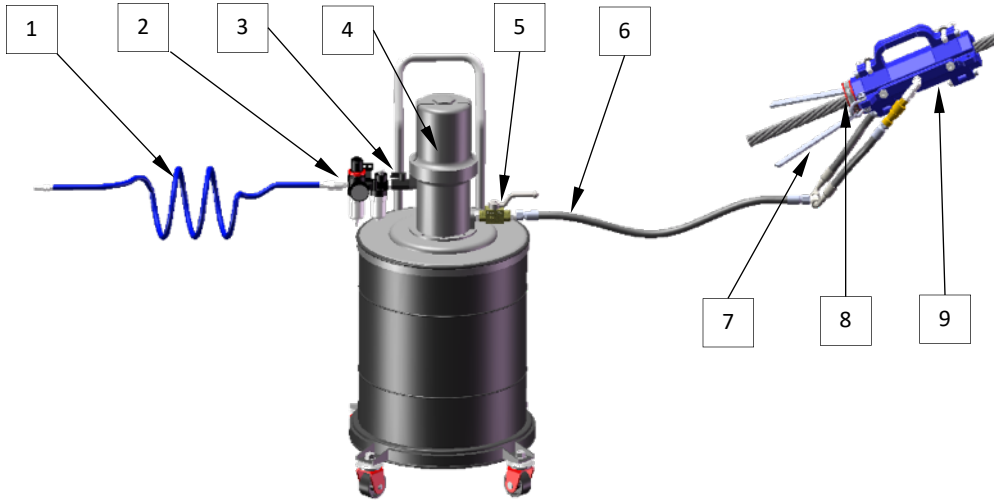


Fig.01

Components Accessories & Specifications

Item	Description	Quantity	Specification
1	Compressed air pipeline	1 set	Length: 5M
2	Air pressure regulator	1 pc	
3	Air inlet ball valve	1 pc	
4	Pneumatic pump with cover	1 set	Pump ratio 50:1
5	Grease flow control valve	1 pc	
6	High pressure grease delivery hose	1 set	Length: 5.4M
7	Anchor chains	2 pcs	
8	Groove cleaner	1 set	
9	Lubricator	1 set	

- ✓ Suitable diameter of wire rope: 8mm ~ 80mm (customized available for additional diameters)
- ✓ Suitable input air pressure: 0.4 ~ 0.8Mpa
- ✓ Effective output pressure: 20 ~ 40Mpa

ASSEMBLY OPERATION MANUAL

Air/grease supply unit (Fig.02)

- ✓ Install the pneumatic pump (1) with cover & flower (5) over grease container (8), then close the lid & lock the snaps carefully.
- ✓ Connect high pressure grease delivery hose (7) assembly to coupler at pump outlet (6).
- ✓ Connect compressed air pipeline (2) to air nipple (3) at air pressure regulator (4).

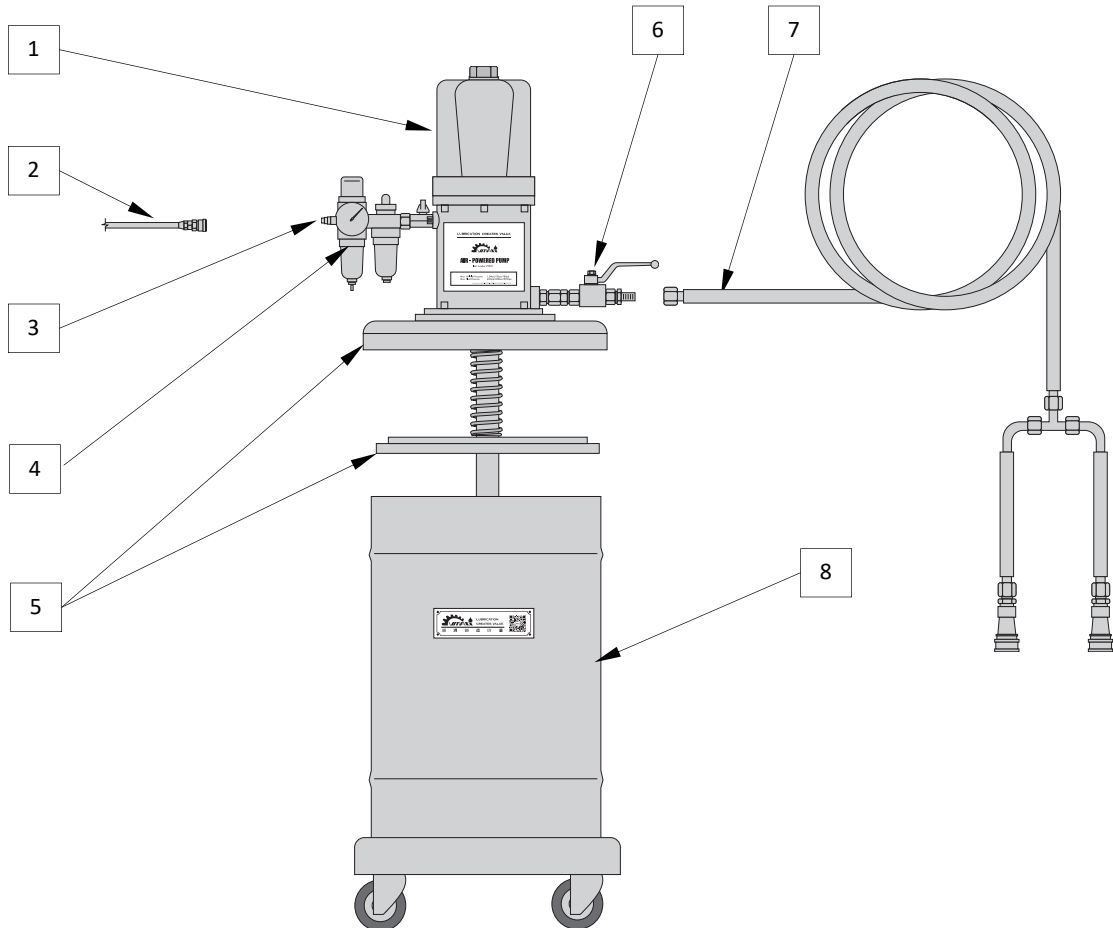


Fig.02

ASSEMBLY OPERATION MANUAL

Install lubricator to wire rope (Fig. 03)

- ✓ Open lubricator clamps (1) and place the seals (2) into slots.
- ✓ Then to clamp the lubricator collar fitted with seals around the wire rope (3) to be lubricated. Tighten the butterfly bolts (4) until secure.
- ✓ To secure the lubricator in suitable place by using attached anchor chains (5), and adjust the chain length to remove slack. Please ensure that all fittings are tightly secured prior to operation.
- ✓ Connect high pressure grease delivery hose from pump outlet to inlet (6) of lubricator by quick connect coupler.

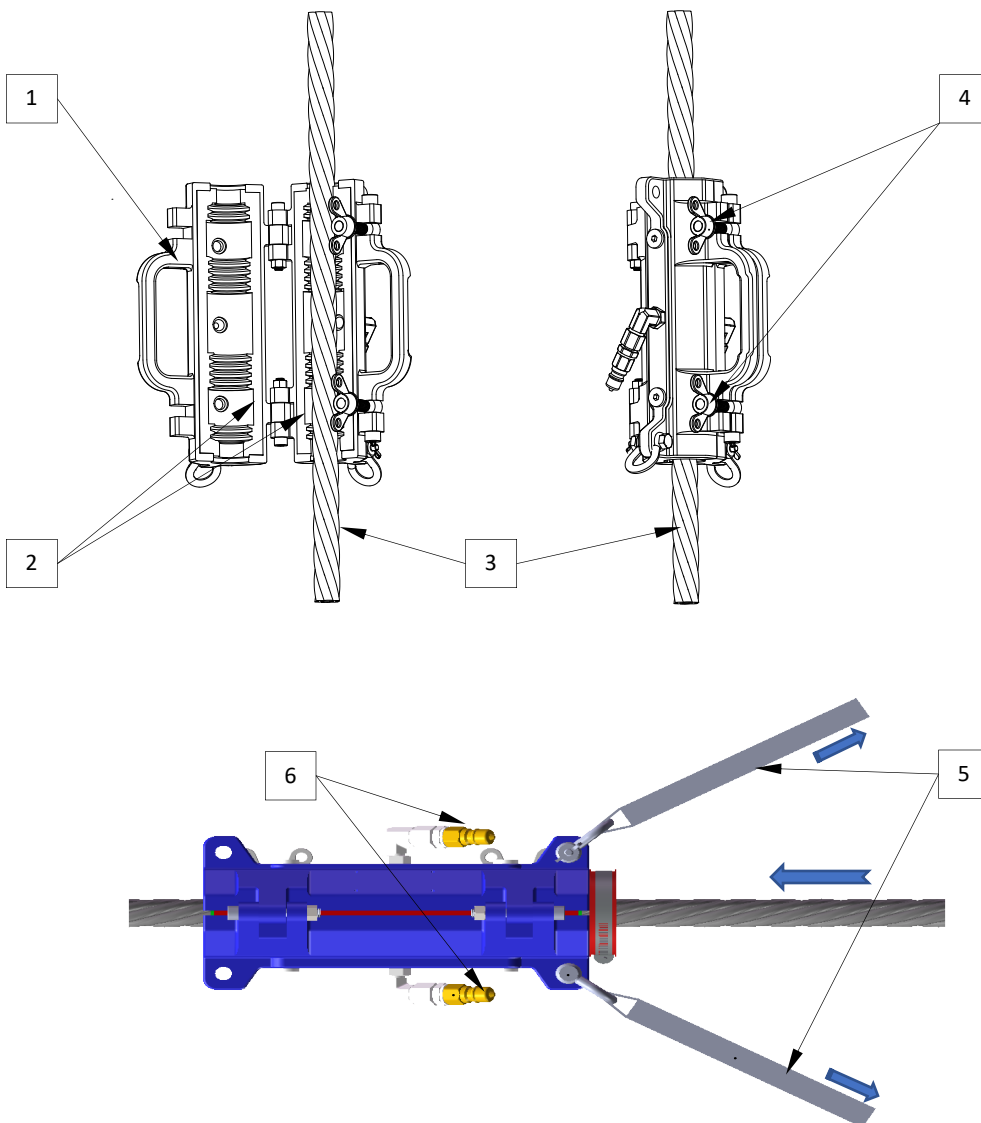


Fig.03

ASSEMBLY OPERATION MANUAL

Install groove cleaner (Fig.04)

- ✓ Install wire lubricator on wire rope in advance (Fig. 03, page 8).
- ✓ The groover cleaner consists of three parts bushing (3.1 / 3.2 / 3.3), prior to assembly two parts of them around wire rope (1), wrap clamp (2) around groover, then insert the third part into clamp and tighten screw to fix it properly.

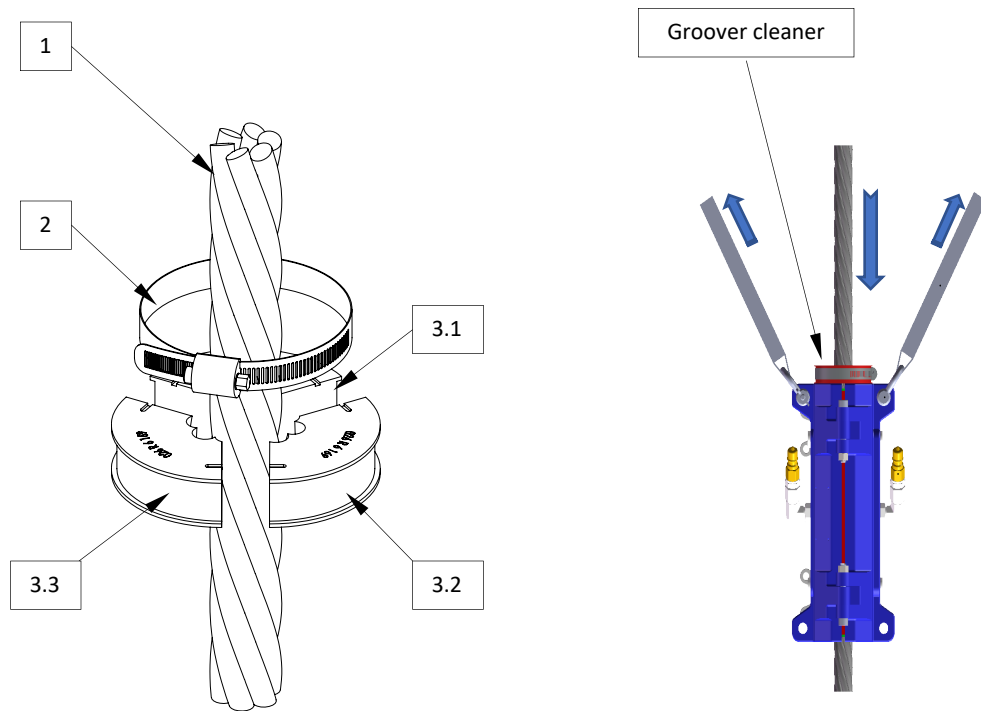


Fig.04

ASSEMBLY OPERATION MANUAL

Operation

- ✓ Connect the air supply to the air regulator unit fitted to the grease pump. Ensure that the air inlet ball valve is off, preventing the air from reaching the pump motor. Set the air pressure regulator to 7 bars.
- ✓ Open the air supply to the lubricant pump via the air inlet ball valve slowly. The pump may start to pump lubricant into lubricator. Keep grease flow control valve until lubricator grease chamber is full. Once lubricant appears at the wire rope entry point, close the grease flow control valve
- ✓ Start wire rope movement while gradually opening air low regulator, adjusting regulator to reduce or increase lubricant amount, until desired lubrication is achieved.
- ✓ The grease flow control valve should be adjusted as required to provide the correct lubricant flow rate into the lubricator. Reduce the lubricant flow if lubricant leaking out of the clamp at the rope entry point. Alternative increase the wire rope speed through the lubricator until the correct amount of lubricant appears on wire rope.
- ✓ After lubrication is complete, remove lubricator from wire rope. Please note the lubricator is a maintenance tool and must be attached to wire rope only during lubrication process. Leaving lubricator fixed to wire rope can damage seals.

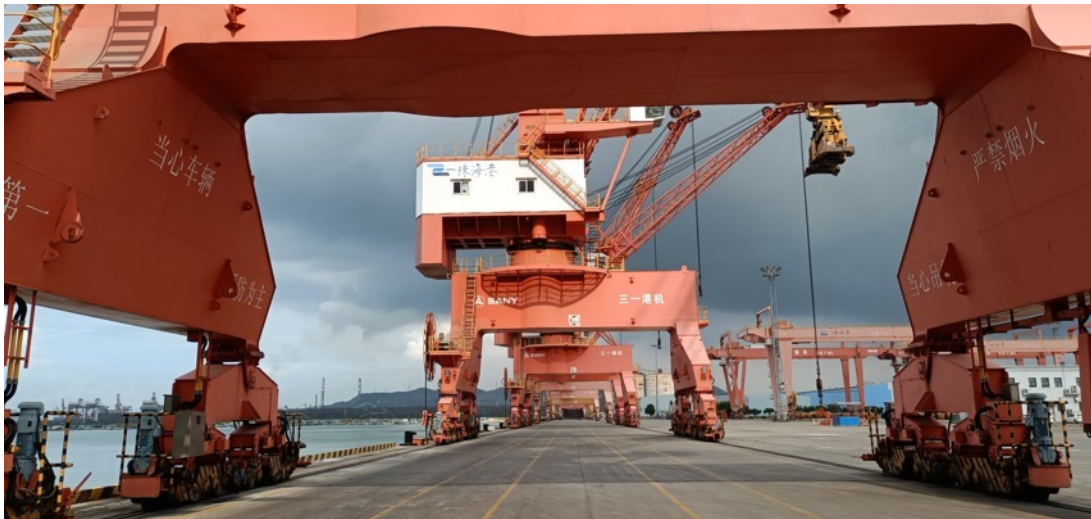
Attention:

- The chain is in high tension & strain state during operation. Ensure that all accessories and anchor chains are fixed firmly before operation.
- The lubricator must be able to swing freely laterally to ensure that the wire rope is evenly tangled on the drum during operation.



SAFETY TECHNICAL GUIDELINES

- ✓ **VMAXX**® Wire Rope Cleaner & Lubricator kit is designed with high pressure pump body technology. User should take precautionary safety measures when working.
- ✓ Before installing the wire rope lubricator on the wire rope, make sure the working area is clean and safe, and there is enough space around the wire rope connection point to connect the lubricator.
- ✓ Ensure a minimum pull of 0.5 tons for the anchor chains, D-shackles and joints used to anchor the lubricator
- ✓ Before connecting to the pneumatic pump and wire rope lubricator, check whether the hydraulic hose, connector air pipe and connector are damaged or worn. Visually inspection of the equipment body shall be carried out to ensure that it is not damaged during transportation or handling. Any damage to the shell that hinders its proper sealing will seriously reduce the ability of the device to force grease to the rope core.
- ✓ Before connecting the lubricator to the wire rope, make sure that the wire rope winch control is locked and labeled.
- ✓ After assembling the lubricator, connect it to the wire rope and fix it in place, the lubrication system can be started.
- ✓ During the operation, adjust the air inlet pressure of the pneumatic pump according to the running speed of the wire rope.
- ✓ Recommended PPE includes safety glasses, leather gloves, safety boots and long sleeve overalls.



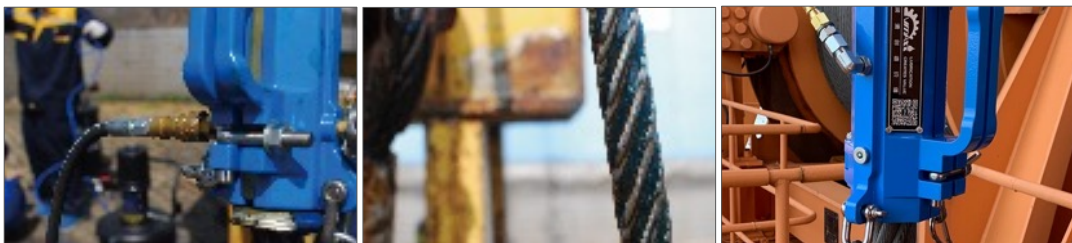
OPERATION INSTRUCTIONS

1. Wire rope grease

- ✓ Make sure you have enough high-quality, sticky and waterproof grease to complete the work. As a general rule, the consumption of lubricating oil per 10 meters of wire rope lubrication varies from 0.2kg to 1kg. This depends on the rope diameter, speed of application, rope design, grease used, and rope condition.
- ✓ If NLGI grade 2 grease is used, it may be necessary to preheat the grease at an ambient temperature lower than 0 ° C (32 F) because of the different viscosity and characteristics of the grease. Please verify preheating method and individual grease specification with grease supplier. Make sure that the grease used can fully protect the wire rope.

2. Lubrication of wire rope

- ✓ Open the air pressure pipeline, and set the correct air pressure on the air pressure gauge by adjusting the air pressure regulating valve.
- ✓ Open the air inlet ball valve to have the compressed air supply to the pneumatic pump.
- ✓ Allow sufficient time for the rope grease to completely fill the high pressure hose and the lubrication chamber until excess grease begins to appear in the low pressure outlet hose of the lubricator, which may take 20 to 30 seconds.
- ✓ Start the wire rope winch and start the lubrication at the speed of 1000m per hour according to the wire rope size and the grease used.
- ✓ Visually inspect the wire rope to ensure adequate grease penetration and external coverage during and after lubrication. Do not over lubricate.
- ✓ Clean the seals, hoses and other accessories before storage after wire rope lubrication. The lubricator seal can be cleaned with a mild petroleum substance such as kerosene. Do not allow the seal to soak in cleaning fluids that may be harmful to its composition.
- ✓ It is important to store the seal away from UV light, which can cause damage if the seal is exposed to sunlight for a long time.



TROUBLE SHOOTINGS

1. No lubricating grease on the wire rope after start up

- ✓ Check the system containing grease or not.
- ✓ Check that the grease flow control valve is fully open.
- ✓ Check whether the compressed air is connected and working.
- ✓ Check that the grease delivery hose is connected to the lubricator.
- ✓ Is the ambient temperature too low?

2. Grease not flowing

- ✓ Grease flow control valve not opened.
- ✓ Whether the compressed air is connected to the pneumatic pump.
- ✓ Air inlet ball valve not opened.
- ✓ Whether there is foreign matter blocking the liposuction pipe.
- ✓ Whether the viscosity of lubricating grease is appropriate.
- ✓ If the ambient temperature is 0 °C or below, turn on the lubricating oil heater (local supply).
- ✓ When the ambient temperature is lower than, 0 °C the lubricating grease with lower viscosity shall be used.
- ✓ Increase the air pressure to increase the lubricant flow until the correct amount of lubricant is on the wire rope.
- ✓ Reduce the wire rope speed to ensure full coverage.

3. Excess lubricating oil on the wire rope

- ✓ Turn down the lubricant ball valve (flow control valve), speed up the running speed of wire rope, and reduce the air pressure.

4. No grease penetration into the wire rope

- ✓ Whether the adhesion on the surface of wire rope is not cleaned.
- ✓ Reduce the load of wire rope, increase the air pressure, reduce the running speed of wire rope, and ensure that the grease flow control valve is fully open.

5. Pneumatic pump working failure

- ✓ Check compressed air is lacking or not.
- ✓ Check whether the liposuction pipe is blocked.
- ✓ Check that the grease flow control valve is opened.
- ✓ Check whether the liposuction pipe is blocked.

QUALITY ASSURANCE

- ✓ **VMAXX**® *Wire Rope Cleaner & Lubricator kit* and all components are guaranteed to be free from any manufacturing or material failure within 12 months from the date of purchase.
- ✓ Reasonable wear of seals and tear of seals caused by broken wires are not covered by warranty.
- ✓ During the warranty period, any parts within the warranty period must be returned to the lubrication Engineer for inspection.



VMAXX[®]

Wire Rope Cleaner & Lubricator Kit

VMAXX[®] Industrial Equipment Manufacturing Co., Ltd., is a professional production and processing company lubrication equipment and accessories, pumps, pipelines, joints, automatic control components and so on. It has a complete and scientific quality management system. Adhering to the "lubrication create value" service concept, customer demand as the driving force, and constantly implementing technological innovation, to provide customers with competitive lubrication equipment solutions. At the same time, we will continue to create maximum value for our customers with convenient and fast professional services.

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