



## **TECHNICAL DATA SHEET**

Versa III Lubricator

Part No.18211A-/18221A-/18201A-/18231A-/28271/  
28273/28275/28277

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Before installing or operating this lubricator, please read this manual carefully. Failure to follow instruction can result in damage to the product and/or serious bodily injury.

The Versa III lubricator meets all operating parameters for Bijur Single Line Resistance (SLR) and Positive Displacement Injector (PDI) centralized lubricating systems.

### **GENERAL**

As a self-contained motorized gear pump, VERSAMATIC III is compact, efficient. It's suitable for most industrial lubricant from 20 cst to 2000 cst and meets a variety of lubricating requirements. VERSA III is programmed to discharge accurate amounts of oil at predetermined intervals from several minutes to several hours. Its units are available complete with built-in level switch, pressure switch. There are 2 different capacity for reservoir, 2 liters and 4 liters, which material is ABS or metal.

VERSA III can be used respectively in PDI system, SLR system or PRG system if it is offered with PDI, MU or PRG .

Applications for VERSA III include: Machine tools, Plastic machinery, Textile machinery, Printing machinery, Elevator and conveyer equipment.

### **NANJING BIJUR MACHINERY PRODUCTS, LTD.**

A SUBSIDIARY OF VESPER CORPORATION

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Form No.33372(1/01)

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Nanjing, China Post Code: 210038

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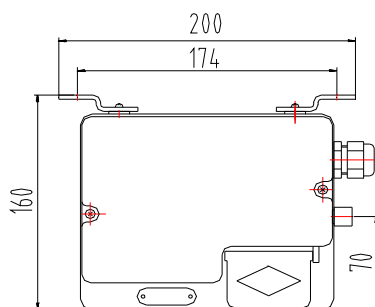
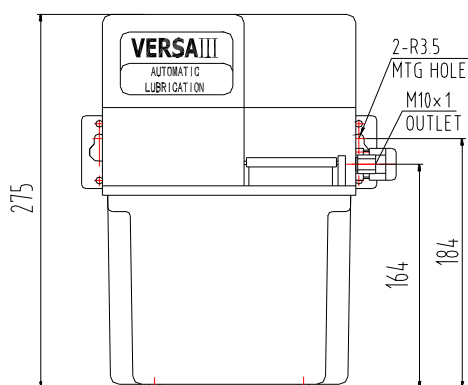
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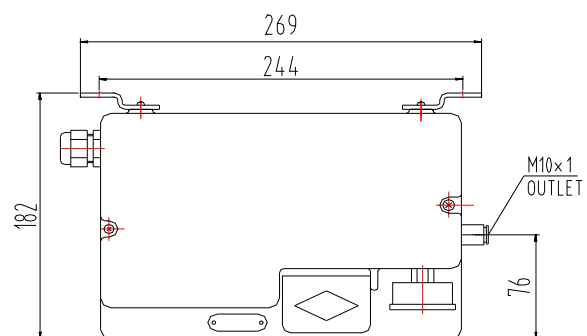
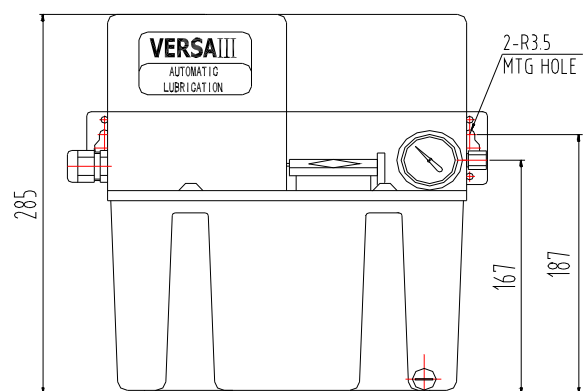
## SPECIFICATIONS

Delivery Volume	108 ml/min
Rated Pressure	1.4 Mpa
MAX. Delivery Pressure	2.5 Mpa
Oil Viscosity Range	20~2000 cst
Filter Precision	90 $\mu$ m
Volumetric Factor	$\geq 75\%$
Power Supply for Motor	220V,110V/1 Phase,380V/3 Phase 50/60 Hz
Velocity of Motor Shaft	1350 rpm
Power Rating	35 Watts
Controller	NO

## LAYOUT AND INSTALLATION DIMENSIONS



VIII 2 LITER



VIII 4 LITER



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## **FEATURES**

- Lubricator is equipped with a single phase or three-phase motor, which is thermally protected.
- With the motor, liquid level switch or pressure switch contacting with user's controller, lubricator can be controlled automatically.
- In PDI system, "ON" period (running time) is controlled by pressure switch while "OFF" period (interval period) is preset by controller.
- In SLR system, controller presets both "ON" and "OFF" period.

## **PRINCIPLE OF OPERATION**

The lubricator is not supplied with a controller, but must meet the timing cycles detailed below.

The cycle unit, it is necessary to make electrical connections to an external device.

Two modes are required to operate the lubricator ---an "OFF" period (pump motor off) and an "ON" period (pump motor on). At the end of an "OFF" (dwell) period, power is supplied to the lubricator's electric motor, commencing operation and pressure built-up. This causes Meter Units to discharge oil to the lubrication points.

**"OFF" period:** the lubricator's dwell periods ("OFF") times are normally governed by the adjustment of a remote controller. Normal "OFF" periods can have a wide range of adjustment from 1 minute minimum to several hours. (Typical "OFF" periods range from 15 minutes to 2 hours).

In order to protect the electric motor from overheating, THE MINIMUM "OFF" TIME SHOULD NOT BE LESS THAN 4 TIMES THE RUNNING "ON" TIME; eg. If the actual "ON" time is 36 seconds, the minimum "OFF" time must be not less than 144 seconds.

**"ON" period:** CAUTION: THE MAXIMUM "ON" PERIOD SHOULD NOT EXCEED FIVE MINUTES PER CYCLE



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## **STARTING A NEW MACHINE**

<b>ATTENTION</b>
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1. Attach tube fittings and PDI / Meter Unit to the lubricating system as requirement.

**Attention:** *Be sure there are not any leakage at each connection in the whole system.*

2. Fill reservoir with clean Bijur approved oil.
3. Remove lubricator's up-cover and connect motor wires refer to the wiring diagram on the cover's inside surface.

**Attention:** *Pay more attention to the motor's rotate direction when connecting wires for 380V motor.*

4. As a pressure switch is equipped, connect it's two external wires with two bullet-shape yellow male terminal, which mode is that normal open without pressure while closing at 1.4 MPa , and the capacity is 220V/1A.
5. A built-in level switch, which capacity is 220V/0.1A, will close as the oil level drops below the minimum line marked on the reservoir outside surface.

**Attention:** *You can convert the Normal Open and Normal Close modes by reverse the float upside.*

6. **Warning:** Make sure that unit is securely and adequately grounded. Failure to ground properly may cause serious injury.
7. Press the button switch to start lubricator and purge air from all main line tubing and junctions until oil flows at all lubrication points.
8. Start main machine. Press the button switch can start the lubricator even though the "ON" / " OFF" periods are set by a remote controller equipped on main machine.

## **MAINTENANCE**

<b>ATTENTION</b>
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1. Check oil level daily and refill as needed with clean **Bijur approved** oil to maintain proper level in reservoir at all times.

*Failure to maintain proper oil level may result in serious damage to lubricator and machine being lubricated.*



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2. Clean reservoir every two months and clean or replace suction filter annually or as frequently as necessary.
3. Safe valve is adjusted to the pressure  $2.5 \pm 0.1\text{MPa}$  before delivery from factory.
4. If an application has some special requirements, please annotate it on purchase order.
5. Lubricator is supplied with many kinds of discharge ports for different adapters, such as M8x1, M10x1, M12x1 or Z1/8.
6. When starts a lubricator for the first time or after parts' replacement, purge air from the lube system at first to ensure oil flows at each lube points before main machine is started. Otherwise, some move parts will be damaged for lack of lubrication.
7. Forbid removing lubricator's cover without turning off and disconnecting power supply.

## **TROUBLESHOOTING CHART**

ITEM	SYMPTOM	POSSIBLE CAUSE	REMEDY
1	Motor can't run	Poor electrical connection	Connect with proper power supply
		Incorrect wire connection	Make sure all wire connections are tight and correct as wiring diagram.
2	Motor runs but lubricator doesn't pump oil	Pump isn't running enough for the first performance	Running 30 seconds at lease for an new lubricator
		There is air in lube system	Purge air from lube system
		380V motor runs in a wrong direction	Convert phase connect
3	Lubricator doesn't pump oil after motor runs for 30 seconds	Oil is not enough	Refill reservoir with clean Bijur approved oil
		Clogged suction filter screen	Clean or replace suction screen.
4	Lubricator doesn't build pressure	Damaged pressure gauge	Replace proper gauge
		Junction loosened or leakage	Fasten or seal tubing fittings
5	Pressure switch work wrong	Damaged pressure switch	Replace proper switch

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User					
P.O. NO.					
Responder		Phone NO.			
Mail-ADD					
Product's Name					
Type / Code			Quantity		
Delivery Date			Installation Date		
Content Degree	<input type="checkbox"/> Appreciate	<input type="checkbox"/> Acceptable	<input type="checkbox"/> Unsatisfactory		
Quality Trouble					
Effect	<input type="checkbox"/> Installation <input type="checkbox"/> Application <input type="checkbox"/> Environment	<input type="checkbox"/> Test <input type="checkbox"/> Reliability <input type="checkbox"/> Others	<input type="checkbox"/> Precision <input type="checkbox"/> Duration	<input type="checkbox"/> Function <input type="checkbox"/> Maintenance	
Requirements	<input type="checkbox"/> Explanation <input type="checkbox"/> Repair <input type="checkbox"/> Return purchase	<input type="checkbox"/> Check on site <input type="checkbox"/> Exchange <input type="checkbox"/> Others	<input type="checkbox"/> Help to test on site <input type="checkbox"/> Claim for compensation		
Suggestions					

Signature:

Date:

**Note:**

1. User should fill the form as they purchase Bijur products.
2. Please choose relative item in the blank.
3. Send this form to: Quality Control Department,

Nanjing Bijur Machinery Products, LTD.

ADD: 9#, Heng Tong Road, Naging Economic & Technical Development  
Zone, Nanjing, China

Post Code: 210038

Tel: 8008286000

Fax: 025-5802299