

ORIGINAL INSTRUCTIONS



Refer to Declaration of Conformity for relevant Directives

# Instruction Manual Booster Lube Series ALB900



The intended use of the booster lube is for the centralised control of multipoint lubrication.

## 1 Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of "Caution," "Warning" or "Danger." They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC) <sup>11</sup>, and other safety regulations. <sup>11</sup> ISO 4414: Pneumatic fluid power - General rules relating to systems.

- ISO 4413: Hydraulic fluid power General rules relating to systems. IEC 60204-1: Safety of machinery Electrical equipment of machines. (Part 1: General requirements)
- ISO 10218-1: Manipulating industrial robots -Safety. etc.
- Refer to product catalogue, Operation Manual and Handling Precautions for SMC Products for additional information.
- Keep this manual in a safe place for future reference

A		Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
A	Warning	Warning indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
A		Danger indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

# **Marning**

- Always ensure compliance with relevant safety laws and standards.
- All work must be carried out in a safe manner by a qualified person in compliance with applicable national regulations.

#### 2 Specifications

#### 2.1 Standard Specifications

Model	ALB900-10	ALB900-20	ALB900-30
Port (Bypass lubrication adapter)	Rc 1	Rc 2	3 inch flange
Port Size (Body)	IN: R ¼ OUT: Rc ½		
Fluid		Air	
Proof Pressure	1.5 MPa		
Operating pressure range	0.4 to 1.0 MPa		
Operating pressure differential range	0.05 to 0.2 MPa		
Bowl capacity between levels (cm <sup>3</sup> )	5000		
Recommended Lubricant	Turbine Oil Class 1 (No Additives), ISO VG32		
Ambient and fluid temperature	5 to 50°C		
Bowl Material	Epoxy Resin with glass fibre, Polycarbonate		
Weight (kg)	28		

# 2 Specifications - continued

2.2 Accessory and Option Part Nos.

	Type	Description	ALB900-10	ALB900-20	ALB900-30
	Std. Accessory	Bypass lubrication adapter	ALBA90-10	ALBA90-20	ALBA90-30
	₽ 8	Ball Valve	Rc 1/4		
	Ø ₹	Ball Valve	Rc ½		
	Option	Float Switch	IS440-1 (Without oil ON) IS440-2 (Without oil OFF)		

Float Switch Specification

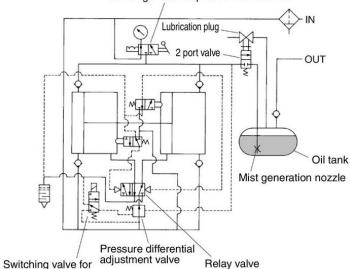
- 10 th 0 th 10 th	
Voltage	200 VAC, 200 VDC
Max. contact capacity	50 VA AC, 50 W DC
Max. contact current	0.5 A AC, 0.5 A DC
Contact	1a, 1b
Level indication	Bottom limit indication

#### **⚠** Warning

Special products might have specifications different from those shown in this section. Contact SMC for specific drawings.

#### 2.3 Circuit

Manual switching valve for confirmation of mist generation pressure differential



# operation control 3 Installation

# 3.1 Installation

# **Marning**

 Do not install the product unless the safety instructions have been read and understood.

## 3.2 Environment

# **Marning**

- Do not use in an environment where corrosive gases, chemicals, salt water or steam are present.
- · Do not use in an explosive atmosphere.
- Do not expose to direct sunlight. Use a suitable protective cover.
- Do not install in a location subject to vibration or impact in excess of the product's specifications.
- Do not mount in a location exposed to radiant heat that would result in temperatures in excess of the product's specifications.

# 3.3 Piping

#### **A** Caution

- Before connecting piping make sure to clean up chips, cutting oil, dust etc.
- When installing piping or fittings, ensure sealant material does not enter inside the port. When using seal tape, leave 1 thread exposed on the end of the pipe/fitting.
- Tighten fittings to the specified tightening torque.

	Thread	Appropriate Tightening Torque (N•m)
	Rc1/4	8~12
Г	Rc1/2	20~25

# 3 Installation - continued

If installing an air tank, install it upstream of the bypass oil feed adapter.
 If it is installed downstream, the micro mist could be arrested by the air tank, which would lead to insufficient feeding of oil.

#### 3.4 Lubrication

#### **A** Caution

- SMC products have been lubricated for life at manufacture, and do not require lubrication in service.
- If a lubricant is used in the system, refer to catalogue for details.

# 4 Settings

- Pressure differential can be adjusted using the pressure difference adjusting screw. Turning clockwise will increase the pressure differential. Anticlockwise will reduce the pressure differential.
- When setting the pressure differentia, if there is a fluctuation in the operating flow rate, set the pressure differential at the higher flow rate range. If it is set in the lower flow rate range, the mist density could become thinner leading to poor lubrication.
- To prevent mist being generated unnecessarily, if there is no air consumption in the main air passage, operate the switching valve for operation control to stop the operation of the booster.

#### 5 How to Order

Refer to drawings or catalogue for 'How to Order'.

#### 6 Outline Dimensions (mm)

Refer to drawings or catalogue for outline dimensions.

#### 7 Maintenance

#### 7.1 General Maintenance

# **▲** Caution

- Not following proper maintenance procedures could cause the product to malfunction and lead to equipment damage.
- If handled improperly, compressed air can be dangerous.
- Maintenance of pneumatic systems should be performed only by qualified personnel.
- Before performing maintenance, turn off the power supply and be sure to cut off the supply pressure. Confirm that the air is released to atmosphere.
- After installation and maintenance, apply operating pressure and power to the equipment and perform appropriate functional and leakage tests to make sure the equipment is installed correctly.
- If any electrical connections are disturbed during maintenance, ensure they are reconnected correctly and safety checks are carried out as required to ensure continued compliance with applicable national regulations.
- Do not make any modification to the product.
- Do not disassemble the product, unless required by installation or maintenance instructions.
- When filling with oil, first loosen the oil filler plug by about 2 and a half turns and wait until the pressure in the tank has been discharged, then remove the oil filler plug and pour in oil.

After supplying oil screw in the plug as far as it will go.

# 8 Limitations of Use

**8.1 Limited warranty and Disclaimer/Compliance Requirements**Refer to Handling Precautions for SMC Products.

### 9 Product disposal

This product should not be disposed of as municipal waste. Check your local regulations and guidelines to dispose this product correctly, in order to reduce the impact on human health and the environment.

# 10 Contacts

Refer to www.smcworld.com or www.smc.eu for contacts.

# **SMC** Corporation

URL: http://www.smc.eu (Europe) 'SMC Corporation, Akihabara UDX15F, 4-14-1, Sotokanda, Chiyoda-ku, Tokyo 101

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Template DKP50047-F-085J