

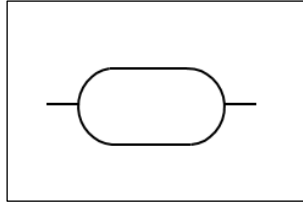


ORIGINAL INSTRUCTIONS



Refer to Declaration of Conformity for relevant Directives

Instruction Manual
ALT-5/9 Series
Auto Feed Tank



The purpose of using ALT is as an oil tank for sending oil to the pneumatic circuit.

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)¹⁾, and other safety regulations.

¹⁾ 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.

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

Warning

- 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.
- The compatibility of pneumatic equipment is the responsibility of the person who designs the pneumatic system or decides its specifications.

2 Specifications

2.1 Standard Specifications

| Model | Auto Feed Tank (Note 1) | | | |
|--|---|--------------------------|--------|--------------------------|
| | ALT-5 | ALT-5-IS-1 ALT-5-IS-2 | ALT-9 | ALT-9-IS-1 ALT-9-IS-2 |
| Port Size | Air: ¼ Oil: ¾ | | | |
| Fluid | Air | | | |
| Proof Pressure | 1.5 MPa | | | |
| Max. Operating Pressure | 1.0 MPa | | | |
| Bowl Capacity (cm³) (Note 2) | 5000 | 5000 | 9000 | 9000 |
| (Capacity between levels) | (4400) | (3400) | (7800) | (6000) |
| Recommended lubricant | Turbine oil Class 1 (With no additives), ISO VG32 | | | |
| Ambient and Fluid temperature | -5 to 60°C (No freezing) | | | |
| Bowl Material | Metal (Carbon steel tubes for machine structure) | | | |
| Weight (kg) | 12.6 | 13.2 | 26.0 | 26.6 |

Note 1) ALT-5(9)-IS-1: Switch on with float down
ALT-5(9)-IS-2: Switch off with float down
Note 2) Capacity between levels: in the case of float switch equipped model, the capacity is measured in levels between the level gauge upper limit and the lower limit of the float switch detective range.

Warning

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

3 Installation

Warning

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

3.1 Environment

Warning

- Do not use in an environment where corrosive gases, chemicals, saltwater 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.

3.2 Piping

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 1.5 to 2 threads exposed on the end of the pipe/fitting.
- Tighten fittings to the specified tightening torque.

| Thread | Appropriate Tightening Torque (N·m) |
|--------|-------------------------------------|
| Rc1/4 | 12~14 |
| Rc3/8 | 22~24 |

3.3 Mounting

Warning

- Connect this product so that the inlet of air locate on cam handle side. Reverse connection prevents normal function from being obtained.
- Install this product vertically so that the drain exhaust face downwards. Installation facing upwards or horizontal will lead to malfunction.
- If the float switch is attached, keep its contact capacity. The use beyond contact capacity will lead to malfunction of the float switch. The use within contact capacity means voltage less than AC50V or DC75V to 200V is also applicable but included into low voltage of EC directive.

Installation - continued

3.4 Lubrication

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 How to Order

Refer to the catalogue for 'How to Order'.

5 Outline Dimensions (mm)

Refer to drawings or catalogue for outline dimensions.

6 Maintenance

6.1 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.

- For addition of the oil, removal of cam handle is required. To remove the cam handle, first rotate the cam handle 90 degrees at least counter clockwise to stop supply of inlet pressure and make the pressure left in the tank exhausted. Then by giving additional counter clockwise rotation to the cam handle, the cam handle can be removed and be ready for supply of new oil.
- Do not fill the oil over the upper limit indicated.
- After filling the oil, tighten the cam handle until the collar at the lower part of the cam handle contacts the top cover.

7 Limitations of Use

8.1 Limited warranty and Disclaimer/Compliance Requirements

Refer to Handling Precautions for SMC Products.

Caution

Do not exceed any of the specifications laid out in section 2 of this document or the specific product catalogue.

8 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.

9 Contacts

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

SMC Corporation

URL : [http:// www.smcworld.com](http://www.smcworld.com) (Global) [http// www.smc.eu](http:// www.smc.eu) (Europe)
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