



SMILE 😊

MANUAL PUMP

Suitable for 01 Metering Systems

User and Maintenance Manual

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1. INTRODUCTION

This user and maintenance manual refers to the **SMILE** Manual Pump.

You can find additional copies and newer revisions of this document from our website <http://www.dropsa.com>.

Alternatively contact one of our Sales Offices.

This manual contains important information on health and safety issues the personnel. It is recommended to attentively read this manual and carefully keep it in good condition so that it is always available to personnel requiring to consult it.

2. GENERAL DESCRIPTION

The **SMILE** Manual Pump is to be utilized for guides, bearings and machine tools applications. Designed for high performance at a low cost, it is distinguished by its compactness. The pump is composed of a control handle, a pump assembly and a transparent reservoir with capacity 500 cm³.

3. IDENTIFICATION OF THE PUMP

A plate showing the product code and the basic characteristics is mounted on the front of the oil tank.

4. TECHNICAL SPECIFICATIONS

CHARACTERISTICS	SMILE Manual Pump
Oil Delivery	5 cm ³ /Cycle
Max Pressure	3 bar
Min. Pressure	1 bar
Reservoir Capacity	500 – 1000 - 3000 cm ³
Operating Temperature Range	-5 - +55 <C
Humidity	90% max
Permissible Lubricants	Mineral Oils
Oil Viscosity at Working Temperature	32 ÷ 220 cSt
Storage Temperature	-20 ÷ +65 °C

5. DESCRIPTION OF COMPONENTS

- A *reservoir*, made of transparent plastic material, compatible with lubricants present on the market.
- *Operation Lever*
- Piston Pump with *Check Valve*



6. UNPACKING AND INSTALLING THE PUMP

6.1 Unpacking

Once a suitable location has been identified for the installation, open the package and remove the pump. Check that the *SMILE* pump has not sustained damage during transport and storage.

The packing material does not require any special disposal precautions, not being in any way dangerous or polluting.

6.2 Mounting the *smile* manual pump

Provide adequate space for the installation, leaving a minimum room of 100 mm around the pump. Mount the *SMILE* manual pump at shoulder height to avoid unnatural posture or the possibility of sustaining impacts. Do not install the *SMILE* pump in particularly aggressive or explosive/flammable environments or on components subject to vibration.

Only use the supplied mounting bracket with N° 2 holes for Ø6 mm bolts.

Connect the Outlet Manifold Block threaded 5/16-24 UNF. with a tube Ø4

7. INSTRUCTIONS FOR USE

7.1 Starting the *SMILE* Manual Pump

Before using the *SMILE* Manual Pump, it is necessary to carry out some preliminary checks:

- check the integrity of the equipment
- check that the hydraulic connection has been effected correctly
- fill the reservoir with clear oil
- Run a few cycles to purge air from system

7.2 Method of functioning

Starting the *SMILE* pump is very simple: pull the handle with firm movement and release it in order to obtain the lubricant delivery.

8. MAINTENANCE PROCEDURE

The pump has been designed and constructed so as to reduce maintenance to a minimum.

To simplify maintenance it is recommended that the equipment be mounted in an easily reached location (**see paragraph 6.2**).

Periodically check the tubing connections for leaks. Always maintain the equipment in a clean condition in order that any leaks will be immediately evident.

The pump does not require any special tools for carrying out checks and/or maintenance tasks. It is recommended that suitable tools and personal protection clothing (gloves) are used in accordance with Legislative Decree 626194 (Safety at Work legislation), and that they are in good condition (DPR 547/55) in order to avoid injury to persons and damage to the machine.

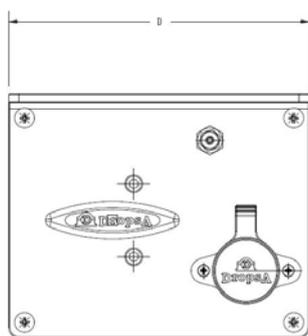
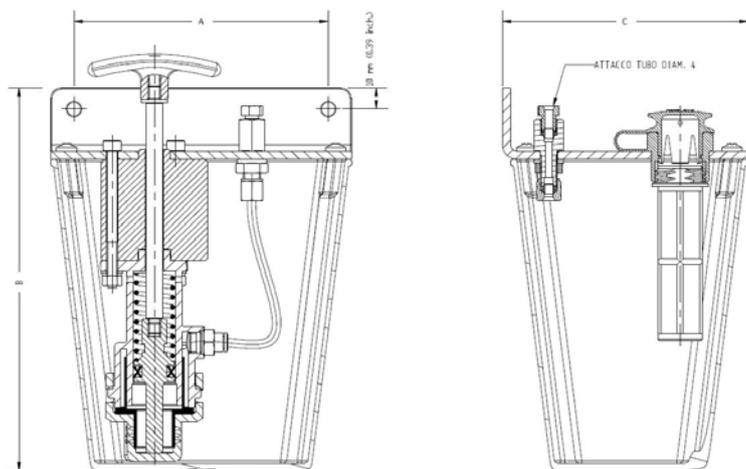
9. DISPOSAL

During the maintenance of the machine, or in the event of its being scrapped, do not discard polluting components in the environment. Refer to local regulations for their correct disposal. At the time of final disposal of the machine it is necessary to destroy the identification plate and all other documentation.

10. ORDERING INFORMATION

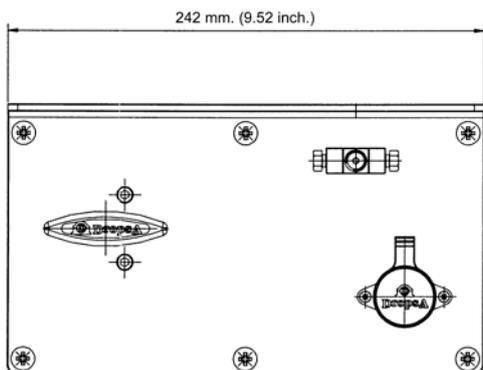
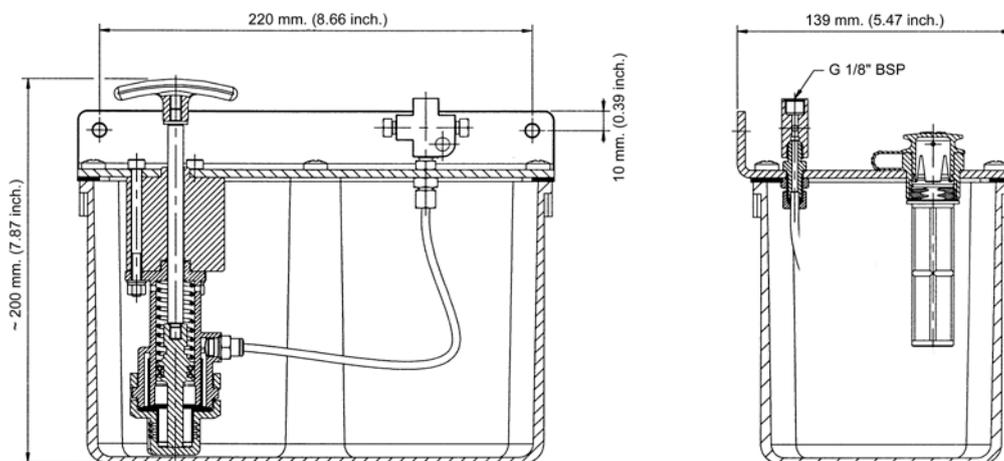
Part No.	Description
12140	Manual pump with reservoir 0,5 Lt.
12150	Manual pump with reservoir 1Lt.
12160	Manual pump with reservoir 3 Lt.

11. DIMENSIONS



Version 0.5 Lt e 1 Lt

Dimensions				weight	tank
A	B	C	D	Kg.	Lt.
100 mm 3.93 inch.	150 mm 5.90 inch.	94 mm 3.70 inch.	120 mm 4.72 inch.	0,75	0,5
120 mm 4.72 inch.	198 mm 7.79 inch.	116 mm 4.56 inch.	142 mm 5.59 inch.	1,40	1



Version 3 Lt

Weight Kg.	Tank Lt.
2,30	3

12. HANDLING AND TRANSPORTATION

Prior to dispatch *SMILE* Pumps are carefully packed in a cardboard carton. During transportation and storage maintain the pump the right way up as indicated on the carton. On receipt, check that the packaging is not damaged and store the pump in a dry place.

- ! *Lift up the equipment considering the side printed on the carton*
- ! *During storage machine components can withstand temperatures from -20 a + 50 °C; to avoid damage it is necessary that the start-up occurs when the machine reaches a temperature of - 5 °C.*

13. OPERATING HAZARDS

It is necessary to carefully read the warnings and the risks involved in using the lubrication pump. The operator must understand the functioning of the unit by studying the user's manual.

Flammability

The oil employed in the lubrication circuit is not normally flammable. It is nonetheless indispensable to take every precaution against the oil coming into contact with very hot parts or open flames.

Pressure

Prior to any intervention on the equipment ensure that pressure is released from all branches of the lubrication circuit. Failure to do this could result in oil being discharged under pressure where connections or components are disassembled.

14. PRECAUTIONS

The *SMILE* pump does not have any particular contraindications except for the following points:

- The operator coming into contact with fluid due to breakage/opening of supply tubing.
The operator must be furnished with suitable personal protection clothing/equipment (D.Lgs. 81/08).
- Abnormal posture.
Take note of the indications shown in **paragraph 6.2.**
- Contact with oil during filling/maintenance.
The operator must be furnished with suitable personal protection clothing/equipment (D.Lgs. 81/08).
- Use of unsuitable lubricants.

Main inadmissible fluids.

Fluid	Danger
Lubricants with abrasive additives	High wear rate of contacted parts
Lubricants with silicon based additives	Seizure of the pump
Petrol - solvents - flammable liquids	Fire - explosion - damage to seals
Corrosive products	Corrosion of the pump- injury to persons
Water	Oxidation of the pump