

The **SMILE** ☺ Manual pump Suitable for 01 Metering Systems

User and Maintenance Manual

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Manufacturer	DropsA SpA
Product	12140 –12150 - 12160
Year	2002
Certification	CE

1. INTRODUCTION

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

This manual should be conserved in such a way that it remains undamaged over time and is readily available to personnel needing to consult it.

Further copies of this manual, updates or clarifications can be obtained by directly contacting the Technical Sales Office at Dropsa.

The manufacturer reserves the right to update the product and/or the user and maintenance manual without the obligation to revise previous versions. It is however, possible to contact the Technical Sales Office for the latest revision in use, or to consult our web site **at <http://www.dropsa.com>**.

The use of the equipment referred to in this manual must be entrusted to qualified personnel with a basic knowledge of mechanics, hydraulics and electrical systems.

It is the responsibility of the installer to use tubing suitable for the system; the use of inadequate tubing can cause problems with the pump, injury to persons and create pollution.

Loosening of connections can cause serious safety problems; carry out a check before and after installation and, if necessary retighten them.

Never exceed the maximum working pressure values permitted for the panel and the components connected to it.

Before any maintenance or cleaning operation disconnect the power supply, close off the air supply and discharge the pressure from inside the equipment and the tubing connected to it.

Do not subject the panel, the connections, the tubing or parts under pressure to violent impacts; damaged tubing or connections are dangerous and should be immediately replaced.

After long periods of inactivity check air tightness of all parts subjected to pressure.

Personnel must use personal protection equipment, clothing and tools adequate for the location and the use of the panel both during its operation and during maintenance operations. The panel, and any accessories mounted on it, should be carefully checked immediately on receipt and in the event of any discrepancy or complaint the Dropsa Spa Sales department should be contacted without delay.

Dropsa Spa declines to accept any responsibility for injuries to persons or damage to property in the event of the non-observance of the information presented in this manual.

Any modification to component parts of the system or the different destination of use of this system or its parts without prior written authorization from Dropsa Spa will absolve the latter from any responsibility for injury to persons and/or damage to property and will release them from all obligations arising from the guarantee.

2. IDENTIFICATION OF THE MACHINE

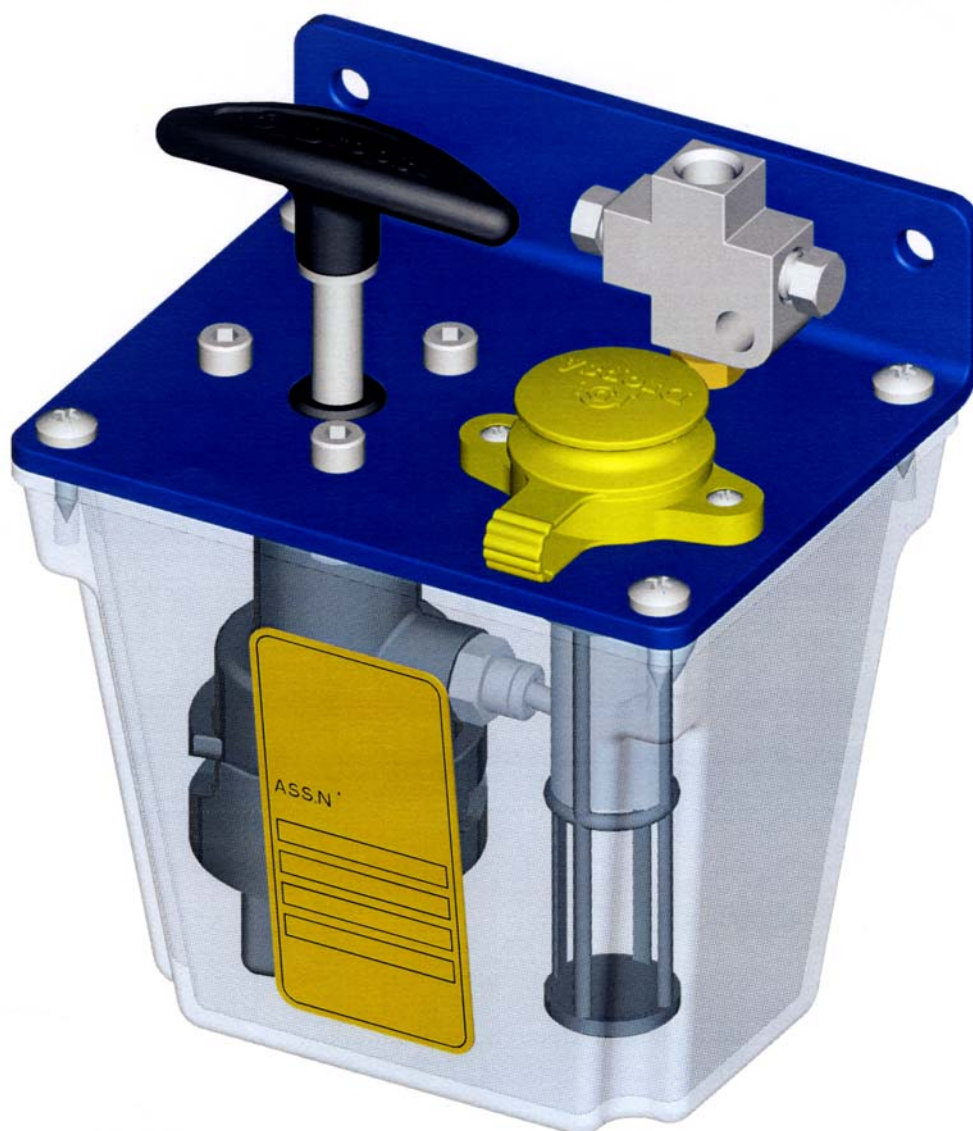
A yellow plate showing the product code and the basic characteristics is mounted on the front of the oil tank.

3. 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.

4. DESCRIPTION OF COMPONENTS

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



5. 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

6. HANDLING AND TRANSPORT

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.

7. PRECAUTIONS IN USE

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.

8. CONTROINDICATIONS

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 (part Vi I I - 626 [Safety at Work legislation]).
- Abnormal posture.
Take note of the indications shown in **paragraph 10.2**.
- Contact with oil during filling/maintenance.
The operator must be furnished with suitable personal protection clothing/equipment (part Vi I I - 626 [Safety at Work legislation]).
- 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

9. INSTALLATION

9.1 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.

9.2 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.

9.3 HYDRAULIC CONNECTIONS

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

N.B.: After all connections have been completed ensure the tubing and cables are protected from impacts and are suitably secured.

10. INSTRUCTIONS FOR USE

10.1 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

10.2 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.

11. MAINTENANCE

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 9.2**).

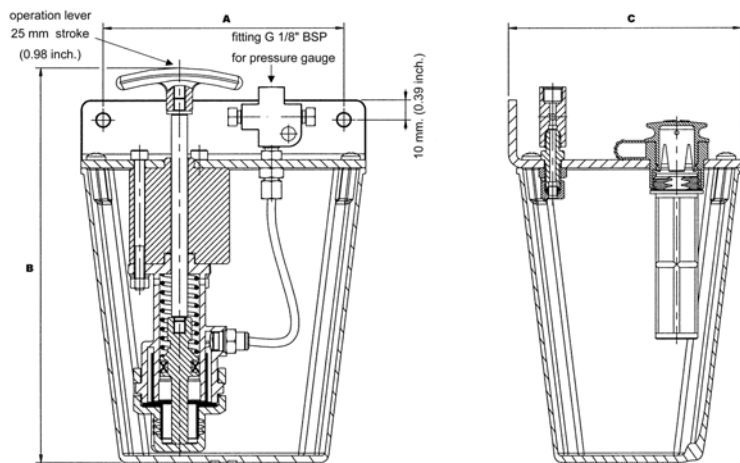
Periodically check the tubing connections for leaks. Always maintain the equipment in a clean condition in order that any leaks will be immediately evident.

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 626/1994 (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.

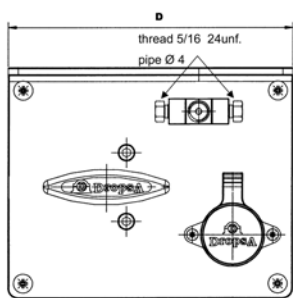
12. DISPOSAL

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.

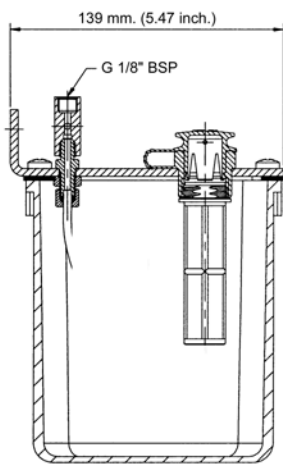
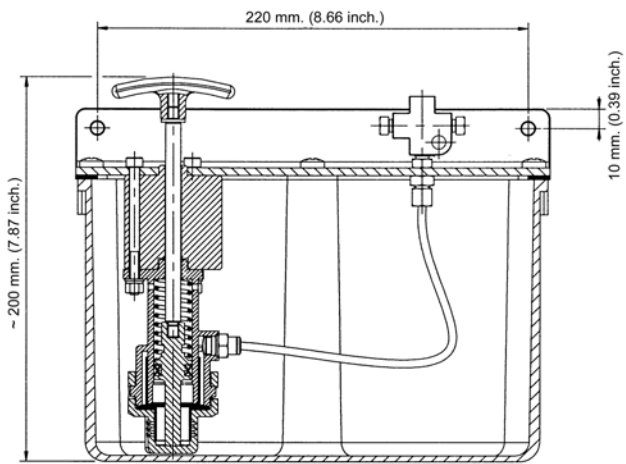
13. DIMENSIONS



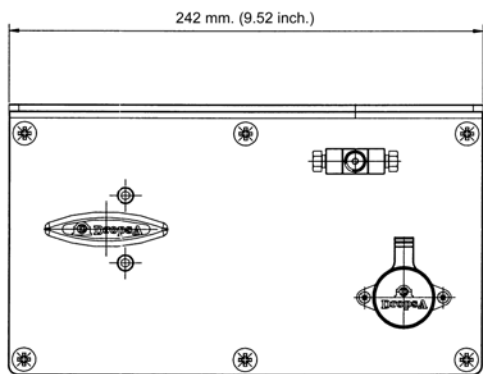
Version 0.5 Lt e 1 Lt



Dimensions					weight	tank
Part n°	A	B	C	D	Kg.	Lt.
12140	100 mm 3.93 inch.	150 mm 5.90 inch.	94 mm 3.70 inch.	120 mm 4.72 inch.	0.75	0.5
12150	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



Part n°	weight Kg.	tank Lt.
12160	2.30	3

14. GUARANTEE

All products manufactured and marketed by Dropsa are warranted to be free of defects in material or workmanship for a period of at least 12 months from date of delivery. Extended warranty coverage applies as follows:

Complete system installation by Dropsa: 24 Months

All other components: 12 months from date of installation; if installed 6 months or more after ship date, warranty shall be maximum of 18 months from ship date.

If a fault develops, notify us giving a complete description of the alleged malfunction. Include the part number(s), test record number where available (format xxxxxx-xxxxxx), date of delivery and installation and operating conditions of subject product(s). We will subsequently review this information and, at our option, supply you with either servicing data or shipping instruction and returned materials authorization (RMA) which will have instructions on how to prepare the product for return. Upon prepaid receipt of subject product to an authorized Dropsa Sales & Service location, we will then either repair or replace such product(s), at our option, and if determined to be a warranted defect, we will perform such necessary product repairs or replace such product(s) at our expense.

Dropsa reserves the right to charge an administration fee if the product(s) returned are found to be not defective.

This limited warranty does not cover any products, damages or injuries resulting from misuse, neglect, normal expected wear, chemically caused corrosion, improper installation or operation contrary to factory recommendation. Nor does it cover equipment that has been modified, tampered with or altered without authorization.

Consumables and perishable products are excluded from this or any other warranty.

No other extended liabilities are stated or implied and this warranty in no event covers incidental or consequential damages, injuries or costs resulting from any such defective product(s).

The use of Dropsa product(s) implies the acceptance of our warranty conditions. Modifications to our standard warranty must be in writing and approved by Dropsa.

15. DECLARATION OF CONFORMITY

Manufacturer :

DROPSA SpA
Company
Via B.Croce, 1 - 20090 Vimodrone (MI)
address
02 - 250791
Telephon

It is certified that:

The machine: SMILE MANUAL PUMP 12140 – 12150 - 12160

- * Is manufactured in conformity with the DIRECTIVE OF THE COUNCIL OF THE EUROPEAN COMMUNITY concerning: the machines (98/37/CE), low voltage (BT 73/23/CEE), electromagnetic compatibility (EMC 89/336/CEE).
- * Is manufactured, where applicable, in accordance with the following standards and harmonised technical specifications.

EN 292-1/2, EN 1050, EN 982, EN 894-1/2

TECHNICAL MANAGER

W. Divisi

Product Manager

Name

DROPSA SpA

Italy

Company



January '02

Signature

Date

16. DISTRIBUTORS

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N.B.: From this manual the only copy valid is the one with the later WK (number of week/year) shown on the front page.