

HAMILTON Salt Line syringes

Congratulations! You have purchased the finest quality precision syringe available today. We at Hamilton Company combine top quality materials with skilled workmanship, ensuring the highest possible performance level of every precision fluid device we manufacture. With proper care and handling **HAMILTON Salt Line** syringes a further development of the **GASTIGHT®** syringe series will provide unsurpassed performance in precision liquid handling

| | |
|-------------------------|--|
| Nominal volume | 1 ml, 2.5 ml, 5 ml and 10 ml |
| Accuracy | ± 1% of the nominal volume |
| Precision | Better than 1.0% of the nominal volume |
| Plunger operating force | 1001, 1002 < 30 N |
| | 1005 < 35 N |
| | 1010 < 50 N |
| Test pressure | 0.6 MPa |
| Operating temp. range | 10-50°C |
| Lifetime | Over 100'000 cycles |

Syringes were tested with salt solution (30g/litre) in Hamilton diluter.

Hamilton's Salt Line syringes are precision, measuring instruments. For prolonged syringe life and to obtain the maximum benefits of use, a few helpful tips should be observed.

ASSURED ACCURACY AND PRECISION

- When initially inserting a new plunger into a **Salt Line** syringe barrel, wet the polyethylene tip with deionized water or another solvent compatible with the sample.
- In using a **Salt Line** syringe grasp only the syringe barrel and plunger button. By doing so, variations in fluid measurement due to body heat are avoided.
- If the plunger is accidentally withdrawn completely from the syringe barrel, wipe it carefully with a lint-free tissue and re-wet it before reinserting into the barrel.
- Be careful of the plunger tip since any physical abrasions, scratches or oil from fingers may cause the plunger to leak once re-assembled.

SAMPLE CARRYOVER

- Eliminate sample carryover by flushing the syringe 5 to 10 times with solvent. Discard the first 2 to 3 solvent washes to avoid sample contamination.

CLEANING AND CARE

The life of your Hamilton syringe is directly related to its cleanliness and proper care.

- To clean the syringe, it is best to use solvents known to be effective in solvating the sample and preferably that are non-alkaline, non-phosphate.
- In general solvents suitable for routine cleaning include methanol, acetonitrile and acetone in high purity grade. Halogenated hydrocarbons (dichloromethane) should not be used because they may damage some glue joints.

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HAMILTON

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HAMILTON quality products:

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Instrument syringes
SoftGrip™ pipettes
SofTouch™ pipettes
SoftAide™ pipettes
SofTop™ dispenser
GC liner
HPLC columns
Precix GC columns

Laboratory automation for:

Drug discovery
Genomics
Proteomics
Forensics
In-vitro diagnostics

STERILIZING

HAMILTON syringes may be sterilized with appropriate sterilizing agents such as ethylene oxide.

AUTOCLAVING

Autoclaving is for the Salt Line Syringe not recommended

DESINFECTING

If your application needs disinfecting then HAMILTON recommend the use of Microcide SQ (P/N 3995-01). This disinfectant is rated to eliminate the majority of commonly encountered bacteria, viruses fungus and mildew. Use of other common chemicals like 10% bleach, acetone or ethanol are acceptable but are not rated to be as effective as Microcide SQ.

STORAGE

Flush the syringe with a solvent in which your sample is highly soluble. As needed, flush the syringe with other miscible solvents. Following the use of any cleaning agent rinse the syringe with deionized water and finally acetone. Clean the exterior of the syringe if needed. Air dry. Store the syringe in its shipping box for protection.

Note: All solvents used for flushing should be of high grade purity. Poorer grade solvents often contain impurities that remain in the syringe barrel and can cause leaking.

TEMPERATURE RANGE

For best results Salt Line syringes are intended for use in a operating temperature from 10° up to 50°C.

WARRANTY STATEMENT

HAMILTON Company unconditionally guarantees its products to be free of defects in materials and workmanship. Any product which fails due to such defects will be repaired or replaced at our discretion without cost, provided the device is returned with an explanation. It is the responsibility of the purchaser to determine the suitability of application and material compatibility of the products based on the published specifications of the products.

RETURN OF GOODS

Hamilton Company's return and repair is written to protect its employees from potentially hazardous material (e.g. serum, radioactive materials, carcinogenic chemicals etc.) or any substance that may cause them partial or permanent disability during inspection or repair process. In returning product, the customer acknowledges that the product is free from any hazardous materials. Furthermore the customer assumes responsibility should returned product by determined to be hazardous.

Syringes and needles manufactured by Hamilton Company are intended for scientific research and laboratory use only and are not intended for human in vivo use.

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