

the **dermal** experience



### the dermal

## experience

The dermal route is gaining ground in both the prescription and OTC markets. It fits with the trends for better drug efficiency and ensures patient compliance. It also allows for self-administration.

#### Our solutions to your needs

Today's high performing formulations require reliable, high quality dispensing systems. Nemera can offer a solution to your specific needs. Our systems are designed to handle the most viscous formulations. We guarantee precision and dose consistency, critical factors especially when dealing with systemic applications. We also have extensive expertise in airless delivery systems which dispense and protect your sensitive products.

#### How to choose from our solutions?

We can help you choose from our range of pumps, valves and airless systems, to meet your product criteria.

We also offer a comprehensive range of fittings, bottles/tubes and applicators. For our spray pumps, please consult us.

	L	Lotion pumps Valves			Airless systems					
Criteria	SP943	SP34	SP24	2D	CV20	6668	6685	Sof′Bag™	Sof'Airless XS	Sof'Airless XL
Nature of formulation										
Lotion, cream, gel, ointment	•	•	•	•		•		•	•	•
Highly viscous								•	•	•
Highly sensitive product								•	•	•
Liquid				•	•					
Powders							•			
Dosage										
None (continuous)					•	•	•			
Low dosage < D250		•	•	•					•	
High dosage > D250	•							•		•
Fitting										
Crimp-on		•	•	•	•	•	•			
Screw-on		•	•							•
Snap-on	•	•	•					•	•	

#### Quality first and foremost

We have dedicated pharmaceutical facilities and healthcare quality programs (ISO 15378 certification). cGMP standards are at the core of our manufacturing and validation culture.

Thanks to our compliance with the most demanding specifications (EMA, FDA, USP...), our pumps and systems are well-suited to deliver precise doses of topical or systemic drugs such as local anaesthetics, anti-inflammatories, hormones, antibiotics, antifungals or counterirritants for the skin.



#### Fitting systems



An updated classic solution for standard finishes, optimized by Nemera to ensure easier assembly on filling lines.



Reliable and easy-to-assemble option. The easy separation of the pump from the bottle supports recycling.



This attachment, known as an "outside neck" ensures that every container is tamper-proof and airtight.

#### Dermal pumps and valves

Tuned for consistency, our pumps are tested and guaranteed by our laboratories. They are models of stability, accuracy and reliability.

Pumps/ Valves			SPS	943			SP34			SP24		CV20	6668	6685	2D
Dose µl	672		1150	1420	1500	1550	130	230	50		130				
Snap-on															
M17C															
M17E															
FEA 20 mm									•	•	•				
M32/41		•	•	•	•										
Crimp-on															
FEA 13 mm															
FEA 20 mm							•	•	•	•	•	•	•	•	•
Screw-on															
DIN 18/10									•						
DIN 18/13							•	•	•	•	•				
GCMI 18/415									•						
GCMI 20/400								•	•	•					
GCMI 20/410									•		•				
<ul><li>standard</li></ul>	•	pilot													

## Pumps

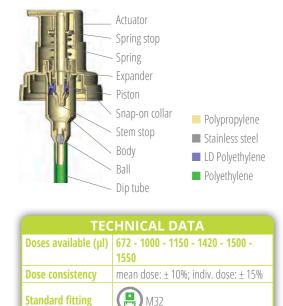


## SP943

The pharmaceutical pump for high dose applications

#### Key advantages

- atmospheric or airless versions
- suitable for viscous lotions and gels
- total neutrality and compatibility:
  - no gasket
  - no contact between the bulk and the spring
- available with the Sof'Bag™ airless system
- DMF (Drug Master File) 13153



BP mono 4389

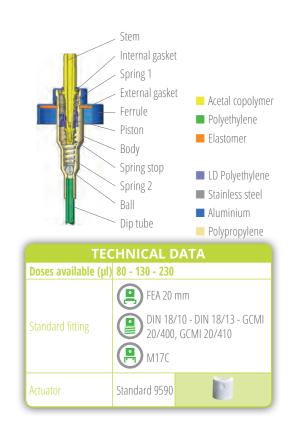


SP34

A standard fluid pump with high flow rate

#### Key advantages

- · precise delivery of viscous liquids
- atmospheric or airless versions
- suitable for cream, gels or ointments
- DMF in process



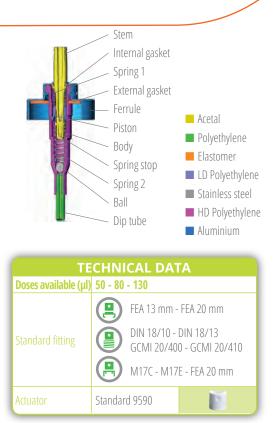


# SP24

Precise delivery for low dosage

#### Key advantages

- accurate lotion pump for targeted areas
- suitable for viscous substances such as gels, creams and ointments
- atmospheric or airless versions
- DMF 13153

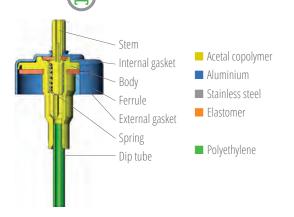






#### **Features**

- valve CV20: for liquid formulations. It works with compressed nitrogen or liquid gas
- valve 6668: for viscous products such as creams, ointments and gels
- valve 6685: for pharmaceutical powders
- fitment FEA 20 mm

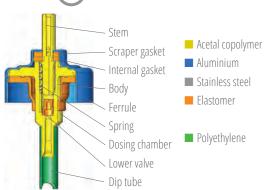




Metered valve

#### Key advantages

- metered dose valve with a neutral propellant agent (nitrogen) for liquid and viscous solutions
- ensures protection of active ingredients down to the last drop
- 100 µl dose available
- fitment FEA 20 mm



## Airless systems

Nemera provides complete airless packaging adapted to your specific requirements with its pouch system, the Sof'Bag $^{\text{TM}}$ , and its piston airless packaging, the Sof'Airless.

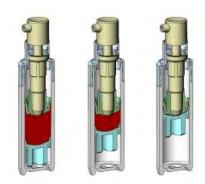
#### What is an airless system?

An airless package is a non-pressurized system, combining a mechanical pump with an airless sealed container which dispenses the substance without air intake.

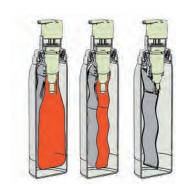
It is suitable for all types of products: fluid or viscous, liquids, creams, gels or pastes.

The container is either equipped with a piston or a pouch.

**System with a piston:** the substance is supplied by a pump that dispenses the product causing the rise of a piston, located inside the bottle, along with the product.



**System with a pouch:** the pump draws the product contained in a flexible pouch located inside a rigid container. The pouch collapses, without air intake, each time the pump is activated.



#### Top 6 reasons to prefer an airless solution:

- excellent evacuation rate (optimum use of the product)
- protection against oxidation and/or contamination
- little or no preservatives (no need to open container, therefore no risk of contamination)
- precise dosing
- user-friendly (can operate system in any position)
- · lengthens product in use life



# The Sof'Bag™

A simple-to-use but high performing airless pouch system for transdermal applications

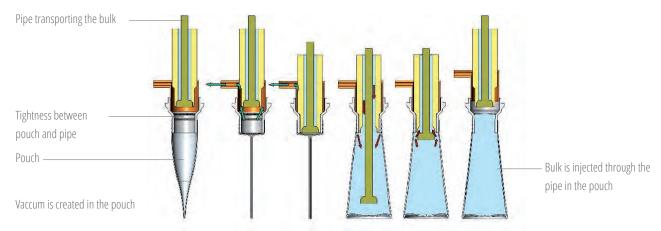


#### Key advantages

- for cream and sensitive substances
- effective barrier properties (from oxygen, light and moisture)
- two components
- SP943 metering pump and cap
- a bottle with an inner multilayer aluminium collapsible pouch
- user-friendly: works in all positions
- easy filling process

TECHNICAL DATA						
Doses available (µl)	672 - 1000 - 1150 - 1420 - 1500 - 1550					
<b>Evacuation ratio</b>	95% for 100 ml depending on bulk					
Fitting	M32					
<b>Bottle capacity</b>	50 ml and 100 ml					
Actuator	BP mono 4389					

#### **Recommended** filling process





# The Sof'Airless

The piston airless solutions
Systems to protect and dispense high-viscosity products

#### Key advantages

- airless systems for Rx, OTC & pharmacy
- protect and dispense high viscosity creams in any position
- only 3 parts: container + dispensing head + cap
- purge ring system
- filling can be done on standard filling lines



Sof'Airless XL customised solution

#### Sof'Airless XS

TECHNICAL DATA						
Doses available (µl)	50 - 80					
Fitting	SP24					
<b>Bottle capacity</b>	2.05 ml					
Actuator	BP mono 9700					

#### Sof'Airless XL - customised solution\*

TECHNICAL DATA						
Dose available (μl)	1420					
Fitting	SP943					
<b>Bottle capacity</b>	59 ml					
Actuator	AB1544					

<sup>\*</sup> not available for anti-acne applications Other doses available, consult us

# Customer specific developments

We can provide efficient, easier to manufacture and cost-effective solutions adapted to your needs. Experts from our Innovation Center can work with you to design specific tailor-made solutions.

Contact Nemera information@nemera.net

#### www.nemera.net

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