



Other
Routes

Bag-on-Valve

Technology Platform



From formulation to patient.

Aptar 
pharma

Bag-on-Valve Technology Platform

The Widest Range of Continuous Dispensing

The Superior Aerosol Dispensing Format for Clean, Convenient and Safe Application

Aptar Pharma's Bag-on-Valve (BOV) continuous dispensing technology delivers a cleaner, superior product application

- Pure, clean and stable product
 - High barrier function to ensure ultimate product protection
 - Complete separation of product from propellant
- Customizable flow rates for viscous to liquid formulations
- Highly efficient evacuation rates
- Convenient handling for consumer
 - Full 360° usage
 - No priming needed
 - Superior dispensing control



Enabling the Widest Range of Product Possibilities



Aptar Pharma's highly versatile BOV actuator portfolio covers a wide range of applications

- Ear-nose-throat
- Dermal
- Veterinary

Our highly flexible actuator technology allows for versatile application formats

- From soft spray to jet and gel dispensing
- Across a wide range of viscosities

Our large variety of bag volumes and color options allow for a diverse, unique product portfolio.

Aptar Pharma's BOV Technology Platform Fulfills High Quality Standards

- Certified production standards
- Actuator with medical grade options available
- Irradiation support upon request



ISO15378



ISO13485

Aptar Pharma's BOV Technology Platform is a recyclable solution supporting more sustainable aerosol dispensing

- Good product recyclability certified with cyclos-HTP (Class. A)*
- Supports existing aluminium recycling streams**
- BOV system is applicable with non-VOC (volatile organic compound) propellants, such as compressed air

* cyclos-HTP certification based on complete BOV system, i.e. including aluminium can, valve, pouch and actuator

** Recyclability varies depending on product configuration and country specific recycling streams



The Pacifica and Anastasia Actuator Families Provide Superior Convenience and Design Features

Users value their premium look & feel and design features

- Clean look and integrated design
- Comfortable actuation and handling
- Integrated tamper evident mechanism

Manufacturers appreciate the simplified filling & production processes

- Integrated over cap
- Unified format sets on filling line
- Streamlined supply chain

Expanding the Pacifica Range With Two New Actuators

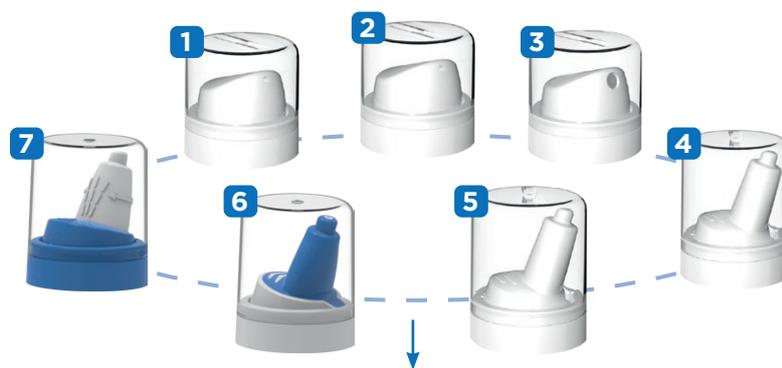


Pacifica Soft, for more gentle application

- Designed for infants' and toddlers' delicate noses
- Made with soft materials for improved actuator haptics

Pacifica Duo, fulfilling two needs with one product

- Providing flexibility to consumers



- 1** Anastasia Gel
- 2** Anastasia Jet
- 3** Anastasia Spray

- 4** Pacifica Jet
- 5** Pacifica Spray
- 6** Pacifica Soft
- 7** Pacifica Duo



Our Wide Range of Actuators Enables a Diverse and Unique Product Portfolio

| | | | | | |
|--|--|---|--|---|---|
| NASAL | EP* | Baby* | Pacifica* | Pacifica Soft* | Pacifica Duo* |
| |  |  |  |  |  |
| |  OR  |  |  OR  |  |  AND  |
| | Proven classical design used with the world's most trusted brands | | Advanced design for clean medical look Integrated tamper-evident feature Integrated cap for simplified processing and streamlined supply chain | | |
| Applicable for nasal hygiene, moisturizing, care, irrigation Variable flow rates for customizable use, i.e. from gentle moisturizing to irrigation Flow Rates:  8ml & 11ml per 10 sec  30 & 75 ml per 10 sec | | | | | |

| | | | |
|--|---|--|--|
| DERMAL | Moritz | Anastasia | |
| |  |  | |
| |  |  OR  | Gel* |
| | Lockable actuator | Increased finger flange for better control and ease of use | Clean & convenient application for high viscous formulations |
| Advanced design for clean medical look | | Advanced design for clean medical look Integrated tamper-evident feature Integrated cap for simplified processing and streamlined supply chain | |
| Applicable for broad range of viscosities Flow rates:  10-40ml per 10s  75ml per 10s Gel 35ml & 62ml per 10 sec | | | |

Anastasia spray

Convenient & flexible use



Continuous soft mist
Applicable at any angle

| | | | |
|---------------------------|---|---|---|
| OTHER ROUTES | Throat | Ear* | Vaginal |
| |  |  |  |
| |  |  |  |
| Moisturizing / irrigation | Gentle irrigation | Hygienic irrigation | |

KEY:  = Spray  = Jet * = medical grade materials

Learn about PureHale®, Aptar Pharma's innovative BOV technology targeting the upper respiratory tract
www.aptar.com/products/pharmaceutical/purehale/

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