



Classic Technology Platform



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The classic offering for local and systemic drug delivery allows for administration of Rx and OTC products via the nasal, oral, dermal, and other routes

Benefits

Key Benefits

- Excellent spray performance
- Suitable for solutions, suspensions and viscous drug formulations including gels
- Gamma-irradiation available
- Wide range of dose volumes from 30 μ l to 500 μ l
- Wide range of closures, actuators and accessories
- Upside-down feature optional
- Child Resistant feature optional: compliant with 16 CFR 1700.20 and ISO8317
- Dose Counters approved in US and EU

Key Differentiators

- Numerous key drug product references launched worldwide
- Highly-customizable for branding differentiation
- Successful track record of multi-site large scale GMP production

Nasal Spray Actuators



Standard Actuators
Dose volume: 30 μ l to 140 μ l



Infant Actuators
Dose volume: 30 μ l to 140 μ l



Gel Actuators
Dose volume: 70 μ l to 140 μ l



Dose Counters
Dose volume: 91 μ l



Child Resistant Feature
Dose volume: 30 μ l to 140 μ l

Oral & Dermal Systems



Spray Actuators
Dose volume: 30 μ l to 250 μ l



Lotion Actuators
Dose volume: 280 μ l to 500 μ l



Drop Actuators
Dose volume: 30 μ l to 250 μ l

Upside-Down Systems



Dose volume: 50 μ l to 120 μ l

Closures



Screw (DIN, GPI, etc.)
Sizes: 18 mm to 24 mm



Crimp
Sizes: 13 mm to 20 mm



Snap-on
Size: 20 mm

Outstanding services supporting your drug product development



Customized drug delivery solutions

- Specific designs for Rx and OTC
- Designed and developed by multi-disciplinary project team
- Highly customer-centric approach and structured design techniques
- Integrated quality driven project management system



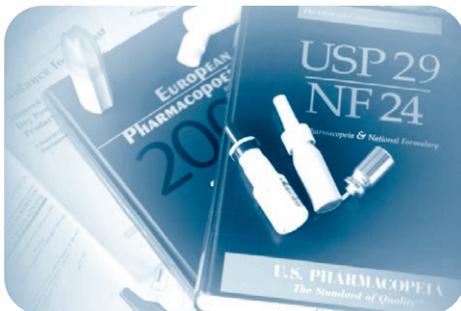
Analytical Laboratories

- Elastomer and plastic extractables, silicone oil assay
- Non-destructive 3D tomography imaging



Physical Laboratories

- Aerodynamic sizing and spray characterization
- Mechanical, stress and content uniformity testing
- IV BE testing
- Fully validated nasal casts available



Regulatory Expertise

- Over 20 years of experience guiding and supporting our customers globally
- Dedicated regulatory affairs experts with 20 DMFs and over 30 first pass NDAs generated
- Fast approval data packages

