Valve

We offer a broad range of aerosol valves to provide always the perfect dispensing solution according to the product formulation and aerosol packaging the customer intends to use. Versatile designs of spray/gel & mousse actuators.

Ariane Valve

The Vertical-action valve provides superior performance with ultra high-speed pressurising and proven reliability with exceptional spray performance.

We have the right solution for any product formulation or specific dispensing modes:
- Powder Valve version (ART/AAT) for products with particles
- Foam / Mousse Valve (ATF) used in top down position with slotted body & without dip tube
- Ball valve for top down dispensing (with adapter & ball)

Bag On Valve

- Bag On Valve systems hold the product separate from the propellant, ensuring product purity
- Fast-filling design uses compressed air or nitrogen outside the bag for eco-friendly dispensing
- Standard bag sizes range from minimum 30 ml to maximum 400 ml
- Modularity – all existing standard inserts can be used
- 360° continuous spray, suitable for a wide range of applications

Metered Valve

- Metered valves are vertically actuated and deliver a precise consistent dosage of product with each actuation
- Ideal for air-fresheners, breath sprays and portion controlled applications

20 mm Valve

- 20 mm vertical action valve: superior performance with ultra rapid filling (overflow system)
- Proven reliability with exceptional spray performance
- Ultimate solution for travel packages or promotions

Ariane Valve (ARM)

Stem (valve stem):
- Different orifice sizes offer different spray behaviour, spray rate and particle size.

Stem gasket (valve stem gasket):
- Different materials allow handling of different formulations and perfume oil – important – offering swelling checks at the Aptar lab.

Body (Housing):
- Castellated Body allows fast filling
- Different RTP orifices generate different spray characteristics
- VPH orifices give the opportunity to handle powder and low VOC products. Also assists with flame control and particle size.

Spring:
- Stainless steel material

Mounting cup (valve fixture):
- Tinplate and Aluminium mounting cups with different coatings offer good product compatibility.

Outer gasket (gasket):
- Different materials allow a good seal between Valve and Can

To meet your individual demands contact our specialists for final product / material specifications.
Ariane Valve

Powder Valve Version (ART)

Ariane Powder Valve is recommended for certain formulations (Antiperspirant) with LOW content of powder particles. (To be checked with Expert Center / Laboratory)

Slider Valve Version (AAT)

Powder Aerosol Valve with slider technology. Is able to handle products with a HIGH content of powder particles or glitter:
- Dry Shampoo
- Glitter Spray

Foam / Mousse Valve (ATF)

Foam / Mousse Aerosol INVERTED USE
- Foam/Mousse Aerosol used in an inverted position.
- Dispense with a slotted valve without dip tube.
- Option: dip tube available for machine handling purposes

Ariane Valve Materials

Stem
- ARM-Stem PA (Ø 4.0 mm, Ø 3.5 mm) from 0.25 to 2 x 0.70
- AAT-Stem (POM) (Ø 3.5 mm) from 1 x 0.5 to 2 x 0.5
- ART-Stem PA (Ø 4.0 mm) from 1 x 0.4 to 2 x 0.65
- ARP-Stem (POM) (Ø 3.5 mm) 1 x 0.45

Stem gasket
- Buna, Neopren, Butyl, Chlorbutyl

Cup (with or without dimples)
- Tinplate: Laminate, lacquered or plain
- Aluminium: Lacquered
- Tin free steel: Laminated

Cup gasket
- Standard Version: Nitrile
- Special Version: Chlorbutyl

Spring
- Standard version: AISI 302
- Special version on request

Body for ARM / AAT / ART-Stem
- RTP (reduction) from 0.33 – 2.0
- VPH (orifice) from 0.33 – 0.8

Body for ARP-Stem
- Natural
- 1.2

Body for inverted position
- Natural
- overhead
- slits

Dip tube
- Polyethylene

Delivering solutions, shaping the future.

To meet your individual demands contact our specialists for final product / material specifications.
**Ariane Ball Valve**

**Ball Valves**
- Possible to spray in the up and down position
- Are used with nitrogen (against misuse), CO₂ filling and standard liquid propellants
- Are able to handle compressed gas formulations
- We see a wide range for application fields for example: sun spray, self tan, face water and technical applications

**Vertical Valve**
is used for a wide range of application fields. Spray and Foam/Mousse.

**Ariane Ball Valve Materials**

**Stem**
- ARM-Stem (Ø 3.5 mm, Ø 4.0 mm) from 1 x 0.25 to 3 x 1.0
- ART (Ø 4.0 mm) from 1 x 0.40 to 2 x 0.65
- Polyamide

**Stem gasket**
- Nitrile, Neoprene, Butyl, Chlorobutyyl

**Cup**
- Tinplate: Laminate, laquered or plain
- Aluminium: Laquered
- Tin free steel: Laminated

**Cup gasket**
- Standard Version: Nitrile
- Special Version: Chlorobutyyl

**Spring**
- Standard version: AISI 302
- Special version on request

**Body**
- Standard Version: Polyamide

**Adapter**
- Polyamide

**Bail**
- Material AISI 302

**Dip tube**
- Polyethylene
Perfect Ball Valve Materials

- **Stem**
  - Perfect Ball Valve stem (Ø 3.5 mm)
  - from 1 x 0.23 to 2 x 0.70
  - Polyamide

- **Stem gasket**
  - Nitrile, Neoprene, Butyl, Chlorobutyl

- **Cup**
  - Tinplate: Laminate, lacquered or plain
  - Aluminium: Lacquered
  - Tin free steel: Laminated

- **Cup gasket**
  - Standard Version: Nitrile
  - Special Version: Chlorobutyl

- **Spring**
  - Standard version: AISI 302
  - Special version on request

- **Body**
  - Standard Version: Polyamide

- **Adapter**
  - Polyamide

- **Ball**
  - Material AISI 302

- **Dip tube**
  - Polyethylene

Bag on Valve

- Bag On Valve systems hold the product separate from the propellant, ensuring product purity
- Fast-filling design uses compressed air or nitrogen outside the bag for eco-friendly dispensing
- Standard bag sizes range from minimum 30 ml to maximum 400 ml
- Modularity – all existing standard inserts can be used
- 360° continuous spray, suitable for a wide range of applications

BOV Benefits

- **Keys to remember**
  - Better use
  - Better preservation
  - Better protection

Delivering solutions, shaping the future.

To meet your individual demands contact our specialists for final product / material specifications.
Better use
Continuous dispensing at 360°
- Works at any angle
- No priming necessary: continuous dispensing system
- The pressurized air / nitrogen between bag & can guarantees a steady product flow
- Depending from the rheological Properties

Better preservation
Ultimate product integrity
- Total product / propellant separation
- No back contamination due to positive pressure – ultimate product protection
- Product integrity: suitable for oxidizing formulations and high reactive formulas

Better protection
Safe handling
- Easy and safe filling due to compressed air / nitrogen propellant
- Quick and clean filling through the female valve
- Non-voc propellant: environment-friendly dispensing system

BOV System components
- Female system, also possible to create on behalf of a male adapter a male BOV
- PE and PP body in a wedged shape
- Stainless steel spring
- Different bag sizes for different can – size available

Actuator & Overcap
(P, PP or POM)
1 inch Female Valve
(no air back)

Customer Product
inside bag, 60 % brimful capacity

Aluminum or TP Can
Brimful volume 77 ML to 850 ML

(1 to 10 bar max filled product)

To meet your individual demands contact our specialists for final product / material specifications.
» Bag on valve (BOV)

Female valve 1" (25.4 mm) Under Cup Gassing (UGG)

<table>
<thead>
<tr>
<th>Inner gasket</th>
<th>Aluminium cup gold lacquered</th>
<th>Tin plate cup transparent lacquered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neoprene NA 7202</td>
<td>Art. Nr. 6005</td>
<td>Art. Nr. 6015</td>
</tr>
<tr>
<td>Buna KA 6712</td>
<td>Art. Nr. 6001</td>
<td>Art. Nr. 6014</td>
</tr>
<tr>
<td>Buna DB 219 (FDA)</td>
<td>Art. Nr. 6002</td>
<td>Art. Nr. 6017</td>
</tr>
<tr>
<td>Butyl U 133 (FDA)</td>
<td>Art. Nr. 6006</td>
<td>Art. Nr. 6016</td>
</tr>
</tbody>
</table>

Includes:
- Body valve: PP and PE (FDA)
- External gasket: Butyl 1.2 mm
- Spring: Inox 302
- Piston: POM (polyacetal) (FDA)

On demand:
- Dip tube for viscous product (not for all sizes) PP (polypropylene)
- Mounted stem 4 mm diameter + male type PE (polyethylene)
- Male version available (stem into the valve) for Aptar Female actuators (Moritz, WS etc.)

Specification has to be adapted for each product.

» Aptar services

Qualifying BOV for your demands
Our experienced and well-equipped laboratory will perform a broad range of tests with your formulation to qualify the BOV device for your specific needs. These tests can include:
- Actuator evaluation test
- Gasket swell test
- Product compatibility test
- Clogging & Product evacuation rate test
- Samples filling with customer product for demonstration

Filling recommendations
Aptar is dedicated to support customers by providing in-depth filling recommendations:
- Recommendations for crimping parameters, etc.
- Providing drawings of collar
- Analysis of Customer filled cans & report
- Long-term relationships with partners for industrial filling worldwide

Bag sizes 4 Layer laminated bags:

<table>
<thead>
<tr>
<th>Volumes</th>
<th>Size</th>
<th>Brim capacity</th>
<th>Size (mm)</th>
<th>Quantity</th>
<th>Weight</th>
<th>Carton</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 ml</td>
<td>A3</td>
<td>77 ml</td>
<td>35 * 88 ALU</td>
<td>1500</td>
<td>10 kg</td>
<td>3008</td>
</tr>
<tr>
<td>50 ml</td>
<td>A5</td>
<td>89 ml</td>
<td>35 * 105 ALU</td>
<td>1500</td>
<td>11 kg</td>
<td>3008</td>
</tr>
<tr>
<td>75 ml</td>
<td>C1</td>
<td>140 ml</td>
<td>40 * 125 ALU</td>
<td>1250</td>
<td>11 kg</td>
<td>3008</td>
</tr>
<tr>
<td>75 ml</td>
<td>D8</td>
<td>140 ml</td>
<td>45 * 96 TP</td>
<td>1250</td>
<td>14 kg</td>
<td>3008</td>
</tr>
<tr>
<td>100 ml</td>
<td>C2</td>
<td>175 ml</td>
<td>40 * 156 ALU</td>
<td>1000</td>
<td>7 kg</td>
<td>3008</td>
</tr>
<tr>
<td>100 ml</td>
<td>D1</td>
<td>175 ml</td>
<td>45 * 125 ALU</td>
<td>1250</td>
<td>11 kg</td>
<td>3008</td>
</tr>
<tr>
<td>100 ml</td>
<td>D1</td>
<td>175 ml</td>
<td>45 * 118 TP</td>
<td>1250</td>
<td>12 kg</td>
<td>3008</td>
</tr>
<tr>
<td>125 ml</td>
<td>D4</td>
<td>210 ml</td>
<td>45 * 150 ALU</td>
<td>1000</td>
<td>10 kg</td>
<td>3008</td>
</tr>
<tr>
<td>125 ml</td>
<td>E1</td>
<td>210 ml</td>
<td>50 * 125 ALU</td>
<td>1250</td>
<td>11 kg</td>
<td>3008</td>
</tr>
<tr>
<td>150 ml</td>
<td>D6</td>
<td>270 ml</td>
<td>45 * 190 ALU</td>
<td>750</td>
<td>10 kg</td>
<td>3008</td>
</tr>
<tr>
<td>150 ml</td>
<td>E2</td>
<td>270 ml</td>
<td>49 * 151 TP</td>
<td>1000</td>
<td>12 kg</td>
<td>3008</td>
</tr>
<tr>
<td>150 ml</td>
<td>E2</td>
<td>270 ml</td>
<td>50 * 156 ALU</td>
<td>1000</td>
<td>10 kg</td>
<td>3008</td>
</tr>
<tr>
<td>150 ml</td>
<td>F2</td>
<td>270 ml</td>
<td>53 * 142 ALU</td>
<td>1000</td>
<td>10 kg</td>
<td>3008</td>
</tr>
<tr>
<td>200 ml</td>
<td>E3</td>
<td>335 ml</td>
<td>50 * 190 ALU</td>
<td>702</td>
<td>8 kg</td>
<td>3008</td>
</tr>
<tr>
<td>200 ml</td>
<td>F4</td>
<td>335 ml</td>
<td>52 * 161 TP</td>
<td>750</td>
<td>10 kg</td>
<td>3008</td>
</tr>
<tr>
<td>200 ml</td>
<td>F4</td>
<td>335 ml</td>
<td>53 * 173 ALU</td>
<td>750</td>
<td>9 kg</td>
<td>3008</td>
</tr>
<tr>
<td>250 ml</td>
<td>F6</td>
<td>405 ml</td>
<td>53 * 205 ALU</td>
<td>650</td>
<td>9 kg</td>
<td>3008</td>
</tr>
<tr>
<td>250 ml</td>
<td>F6</td>
<td>405 ml</td>
<td>52 * 195 TP</td>
<td>650</td>
<td>10 kg</td>
<td>3008</td>
</tr>
<tr>
<td>300 ml</td>
<td>H2</td>
<td>520 ml</td>
<td>69 * 214 ALU</td>
<td>600</td>
<td>8 kg</td>
<td>3008</td>
</tr>
<tr>
<td>300 ml</td>
<td>G2</td>
<td>516 ml</td>
<td>57 * 207 TP</td>
<td>600</td>
<td>10 kg</td>
<td>3008</td>
</tr>
<tr>
<td>400 ml</td>
<td>J2</td>
<td>650 ml</td>
<td>66 * 216 ALU</td>
<td>600</td>
<td>8 kg</td>
<td>3008</td>
</tr>
<tr>
<td>400 ml</td>
<td>J2</td>
<td>650 ml</td>
<td>65 * 195 TP</td>
<td>600</td>
<td>10 kg</td>
<td>3008</td>
</tr>
</tbody>
</table>

TP = Tin plate - ALU = Aluminium

Autres exécutions sur demande / Andere Ausführungen auf Anfrage / Other executions on request
v02/2010 Subject to change at any time without notice.

To meet your individual demands contact our specialists for final product / material specifications.
» Metered Valve

- Metered valves are vertically actuated and deliver a precise consistent dosage of product with each actuation
- Ideal for air-fresheners, breath sprays and portion controlled applications

Applications
- Air Care
- Oral Care

Dosage
- Europe Production: pressure fill: 120 µl, fast fill: 120 µl
- US Production: pressure fill: 25/30 µl, 40 µl, 60 µl, 90 µl, 120 µl, 185 µl
- Fast fill: 40 µl, 60 µl, 80 µl, 120 µl, 185 µl

Available with
- Ferrules 20mm, ferrules 13 mm and 15 mm only USA
- 1 inch Mounting Cup

» Metered valve with 1 inch mounting cup / Material

Stem
- (Ø 2.8 mm) POM

Stem gasket
- Nitrile, Neopren, Butyl

Mounting Cup (with or without dimples)
- Tinplate: Laminate, laquered or plain
- Aluminium: Laquered

Cup gasket
- Standard Version: Buna
- Special Version: Chlorbutyl

Spring
- Standard version: AISI 302
- Special version on request

» Metered valve with ferrule / Material

Stem
- (Ø 2.8 mm) POM

Stem gasket
- Nitrile, Neopren, Butyl

Ferrules
- Aluminium: plain and anodised

Gasket
- Standard Version: Buna
- Special Version: Chlorbutyl

Spring
- Standard version: AISI 302
- Special version on request

Delivering solutions, shaping the future.

To meet your individual demands contact our specialists for final product / material specifications.
» 20 mm Valve

- 20 mm vertical action valve: superior performance with ultra rapid filling (overflow system)
- Proven reliability with exceptional spray performance
- Ultimate solution for travel packages or promotions

» Valves Ariane – 20 mm

Ariane M

» Accessories 20 mm Valve for Personal Care Application Fields

Spray applications
Actuator: 140 for 20 mm Valve
Stem diameter: 4 mm

Actuator: 155 A for 20 mm Valve
Stem diameter: 3 mm

Foam applications
Actuator: 871 A - Short-Nose for 20 mm Valve
Stem diameter: 3 mm

Actuator: 870 A for 20 mm Valve
Stem diameter: 3 mm

» Technical characteristics

<table>
<thead>
<tr>
<th>Designation</th>
<th>Shape</th>
<th>Characteristics</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem</td>
<td></td>
<td>Ø stemshaft 3.0 mm / 4.0 mm</td>
<td>Controlling the flow of product</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ø of the orifice &gt; from 0.25 mm to 2 x 0.50 mm Materials = PA, POM</td>
<td></td>
</tr>
<tr>
<td>Stem gasket</td>
<td></td>
<td>Material: nitrile, butyl, neoprene</td>
<td>Opening / closing the stem</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sealing at the level of the stem</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
<td>Material: stainless steel</td>
<td>Closing of the valve</td>
</tr>
<tr>
<td>Valve body</td>
<td>Housing outer diptube / inner diptube</td>
<td>Ø orifice ~ 0.33 mm to 2.3 mm</td>
<td>Supports the different parts of the valve (sub-assembly stem / body + diptube)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ø VPN ~ 0.30 mm to 0.60 mm Tall piece adapted to exterior and inner tubes Materials = PA, POM</td>
<td>Regulation of flow rate</td>
</tr>
<tr>
<td>Cup</td>
<td></td>
<td>Geometry: 20 mm</td>
<td>Cohesion between the can and the valve and supports the valve mechanism</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Material: aluminum + 26 mm + epoxy lacquer or molding</td>
<td></td>
</tr>
<tr>
<td>Cup gasket</td>
<td></td>
<td>Dimensions: adapted to the geometry of the cup Material: nitrile / butyl</td>
<td>Sealing valve / can</td>
</tr>
<tr>
<td>Diptube</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ext. diptube</td>
<td>Different inner diameters of the diptubes Materials: PE / PP or PET</td>
<td>Rise of AP to the valve</td>
</tr>
</tbody>
</table>

To meet your individual demands contact our specialists for final product / material specifications.
Spray Technologies

We offer a broad range of aerosol actuators, small and functional, or bold and fashionable, all available with options to meet the required spray characteristics.

Gel and Foam Actuators - Lotion, Gel and Foam

For upright position
- S 20
- S 25
- S 30
- Wren
- SelMouse
- Allegra Foam
- SeaGel
- Vapo Gel
- Anastasia Gel
- Optimum

For inverted use only
- S 14
- S 15
- S 16
- S4LC

Spray Actuators

- WS 25
- WS 29
- WS 30
- WS 40
- WS 345

- WS 349
- Car
- Shara
- WAZ
- Classic spray
- Vapo spray
- Anastasia spray
- Akur
- Jazz Aerosol

Twist lock

- Glamcore
- Moritz
- Vail

Latest Innovations on Aerosol Actuators

- Mambo 52
- Mambo 49

Delivering solutions, shaping the future.

To meet your individual demands contact our specialists for final product / material specifications.
Valve Accessories / Fitting

Valve Accessories Gel + Foam
upright use

<table>
<thead>
<tr>
<th>Gel and Foam Actuators</th>
<th>Application Field</th>
<th>Valve</th>
<th>Skirt length</th>
<th>Location</th>
<th>Stem Fit / Fitting</th>
<th>Fitting Cap</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>S20 (foam)</td>
<td>6 mm</td>
<td>Europe</td>
<td>4.0 mm, 3.5 mm</td>
<td>KT7 (p/t),</td>
<td>Perfect design for foam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S20 (gel)</td>
<td>5 mm</td>
<td></td>
<td>Fits on mounting</td>
<td>K7RF (p/t),</td>
<td>Generous finger past</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td></td>
<td>cup 1&quot; (35 mm)</td>
<td>K7RA (t)</td>
<td>S30 Gel is compatible with BOV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV (with adapt.)</td>
<td>6 mm</td>
<td>Europe  USA</td>
<td>4.0 mm, 3.5 mm</td>
<td>KT7 (p/t),</td>
<td>S25 Gel is compatible with BOV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV (with adapt.)</td>
<td>5 mm</td>
<td></td>
<td>Fits on monting</td>
<td>K7RF (p/t),</td>
<td>with adapt.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td></td>
<td>cup 1&quot; (35 mm)</td>
<td>K7RA (t)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vertical</td>
<td>6.5 mm</td>
<td>Europe</td>
<td>4.0 mm, 3.5 mm</td>
<td>KT7 (p/t),</td>
<td>Perfect design for foam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV (with adapt.)</td>
<td>3 mm</td>
<td></td>
<td>Fits on mounting</td>
<td>K7RF (p/t),</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td></td>
<td>cup 1&quot; (35 mm)</td>
<td>K7RA (t)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vertical</td>
<td>8 mm</td>
<td>USA</td>
<td>4.0 mm, 3.5 mm</td>
<td>USA</td>
<td>Soft actuation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV (with adapt.)</td>
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<td></td>
<td>Fits on mounting</td>
<td></td>
<td>Compatible with BOV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td></td>
<td>cup 1&quot; (35 mm)</td>
<td>USA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vertical</td>
<td>11.9 mm</td>
<td>Europe</td>
<td>4.0 mm, 3.5 mm</td>
<td>SG FL polished</td>
<td>Soft actuation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV (with adapt.)</td>
<td></td>
<td></td>
<td>Fits on can 53 mm</td>
<td></td>
<td>Perfect design for shaving foam</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td></td>
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<td></td>
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</tr>
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<td></td>
<td></td>
<td>Vertical</td>
<td>11.9 mm</td>
<td>Europe</td>
<td>4.0 mm, 3.5 mm</td>
<td>SG FL polished</td>
<td>Perfect design for shaving foam</td>
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<td>BOV (with adapt.)</td>
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<td></td>
<td>Fits on can 53 mm</td>
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<td>BOV female</td>
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<td></td>
<td></td>
<td>Up to 45 degree use, available in different flowrates</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV male</td>
<td></td>
<td>USA</td>
<td>Female BOV</td>
<td></td>
<td>Vapo Ring fits on valve and Vapo Cap</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td></td>
<td>Fits on mounting cup 1&quot; (35 mm)</td>
<td></td>
<td>Vapo Gel good along with Vapo Ring + Vapo Cap; with aluminium cups only</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td>USA</td>
<td>Female BOV</td>
<td></td>
<td>Perfect for gels, lotions, and creams</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV male</td>
<td></td>
<td></td>
<td>Fits on mounting cup 1&quot; (35 mm)</td>
<td></td>
<td>For use with male or female EP Stop-On-Valve</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aluminium or Typlate cups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td>Europe</td>
<td>Female BOV</td>
<td>K7 (p/t),</td>
<td>Soft actuation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV male</td>
<td></td>
<td></td>
<td>Fits on mounting cup 1&quot; (35 mm)</td>
<td>K7RF (p/t),</td>
<td>Several orifice restrictions available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BOV female</td>
<td></td>
<td></td>
<td></td>
<td>K7RA (t)</td>
<td></td>
</tr>
</tbody>
</table>

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### Valve Accessories Gel + Foam

<table>
<thead>
<tr>
<th>Foam Actuator</th>
<th>Application Field</th>
<th>Valve</th>
<th>Skirt Length</th>
<th>Location</th>
<th>Stem Fit / Fitment</th>
<th>Fitting Cap</th>
<th>Key Features</th>
<th>Actuators for inverted use only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical</td>
<td>10.5 mm USA</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>n/a</td>
<td>Ergonomic design with textured finger pad. Headless design, no cap to lose. Two piece design allows color variations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>5 mm Europe</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>K4 polished K4 frosted</td>
<td>Special design for inverted position. Volumizing diffuser.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>5 mm Europe</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>K4 polished K4 frosted</td>
<td>Unique design. Volumizing diffuser.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>5 mm Europe</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>K4 polished K4 frosted</td>
<td>Special design for inverted position. Volumizing diffuser.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>5 mm USA</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>Standard Mousse</td>
<td>Special design for foam. Volumizing diffuser. Two piece design allows color variations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>USA</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>Locking Mousse</td>
<td>Special design for foam. Volumizing diffuser. Curvaceous and feminine shape.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>8 mm Europe</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>K4 polished K4 frosted</td>
<td>Special design for inverted position. Retro design.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Valve Accessories Spray

<table>
<thead>
<tr>
<th>Spray Actuators</th>
<th>Application Field</th>
<th>Valve</th>
<th>Skirt Length</th>
<th>Location</th>
<th>Stem Fit / Fitment</th>
<th>Fitting Cap</th>
<th>Key Features</th>
<th>Actuators for inverted use only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical</td>
<td>8 mm Europe</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>K7 (p/l) K7RF (p/l) K7R4 (p/l)</td>
<td>Soft actuation force. Compatible with all application fields. Many insert options for fine-tuning the spray. Custom colors available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>8 mm Europe</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>K7 (p/l) K7RF (p/l) K7R4 (p/l)</td>
<td>Soft actuation force. Compatible with all application fields. Many insert options for fine-tuning the spray. Custom colors available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>8 mm Europe</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>K7 (p/l) K7RF (p/l) K7R4 (p/l)</td>
<td>Soft actuation force. Compatible with all application fields. Many insert options for fine-tuning the spray. Custom colors available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>8 mm Europe</td>
<td>4.0 mm Fits on mounting cup-1” (35 mm)</td>
<td>K7 (p/l) K7RF (p/l) K7R4 (p/l)</td>
<td>Soft actuation force. Compatible with all application fields. Many insert options for fine-tuning the spray. Custom colors available.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>10.7 mm Europe</td>
<td>4.0 mm Fits on can-45 mm TP / ALU</td>
<td>EU cap (p/l)</td>
<td>Large ergonomic actuator. Soft actuation force. Attractive corks shaped hood. Many insert options for fine-tuning the spray.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>8.2 mm Europe</td>
<td>4.0 mm Fits on can-50 AL / 48 TP</td>
<td>EU cap (p/l)</td>
<td>Large ergonomic actuator. Soft actuation force. Attractive corks shaped hood. Many insert options for fine-tuning the spray.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>Europe</td>
<td>4.0 mm Fits on can-52 TP</td>
<td>Not applicable</td>
<td>Modular system for fruitless compact design for differentiation and family look through 49.85 mm sizes. Light weight solution.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical</td>
<td>Europe</td>
<td>4.0 mm Fits on can-49 TP</td>
<td>Not applicable</td>
<td>Modular system for fruitless compact design for differentiation and family look through 49.85 mm sizes. Light weight solution.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## Valve Accessories Spray

<table>
<thead>
<tr>
<th>Spray Actuators</th>
<th>Application Field</th>
<th>Valve</th>
<th>Skirt length</th>
<th>Location</th>
<th>Stem Fit / Filament</th>
<th>Fitting Cap</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>Europe</td>
<td>4.0 mm, 3.5 mm</td>
<td>Fits on stem</td>
<td>n/a</td>
<td>Any application field where highly directional spray is desired.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>USA</td>
<td>4.0 mm</td>
<td>Fits on mounting cup-1&quot; (25 mm)</td>
<td>n/a</td>
<td>Bold design</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>Europe</td>
<td>4.0 mm, 3.5 mm</td>
<td>Fits on stem</td>
<td>n/a</td>
<td>Compatible with all types of inserts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOV female</td>
<td>Europe</td>
<td>Female BOV</td>
<td>Vapo ring Vapo cap</td>
<td>Very fine mist actuators, available in different spray characteristics.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOV female</td>
<td>Europe</td>
<td>Female BOV</td>
<td>Vapo ring Vapo cap</td>
<td>Very fine mist actuators, available in different spray characteristics.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOV female</td>
<td>Europe</td>
<td>Female BOV</td>
<td>Vapo ring Vapo cap</td>
<td>Very fine mist actuators, available in different spray characteristics.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Valve Accessories Spray

<table>
<thead>
<tr>
<th>Spray Actuators</th>
<th>Application Field</th>
<th>Valve</th>
<th>Skirt length</th>
<th>Location</th>
<th>Stem Fit / Filament</th>
<th>Fitting Cap</th>
<th>Key Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>Europe</td>
<td>4.0 mm</td>
<td>Fits on mounting cup-1&quot; (25 mm)</td>
<td>n/a</td>
<td>Generous finger pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>USA</td>
<td>4.0 mm</td>
<td>Fits on mounting cup-1&quot; (25 mm)</td>
<td>n/a</td>
<td>Twist &amp; intuitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>Europe</td>
<td>4.0 mm</td>
<td>Fits on can-63 mm</td>
<td>n/a</td>
<td>Multiple applications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>USA</td>
<td>4.0 mm</td>
<td>Fits on mounting cup-1&quot; (25 mm)</td>
<td>n/a</td>
<td>Two spray options in one actuator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>Europe</td>
<td>4.0 mm</td>
<td>Fits on stem</td>
<td>n/a</td>
<td>Unique design with ergonomic leverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical BOV (with adaptor)</td>
<td>Europe</td>
<td>4.0 mm</td>
<td>Fits on mounting cup-1&quot; (25 mm)</td>
<td>n/a</td>
<td>Unique Design with ergonomic leverage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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» Caps for Valve Accessories

SG RD polished  SG FL polished
K4 01 frosted  K4 01 polished  K4 R0 polished
K7 frosted  K7 polished  K7 R0 polished
K7RF (frosted or polished)  K7R4 frosted

» Accessories for Bag On Valve

<table>
<thead>
<tr>
<th>Spray Type</th>
<th>Part no.</th>
<th>Part name</th>
<th>Material</th>
<th>g/10s at 9 bars</th>
<th>Average flow rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classic</td>
<td>7201'15=15</td>
<td>Classic Spray</td>
<td>POM</td>
<td>env. / ca. 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7202'15=15</td>
<td>M1</td>
<td></td>
<td>env. / ca. 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7203'15=15</td>
<td>Classic Spray</td>
<td>POM</td>
<td>env. / ca. 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7240'15=15</td>
<td>Classic Spray</td>
<td>POM</td>
<td>env. / ca. 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7250'15=15</td>
<td>Classic Spray</td>
<td>POM</td>
<td>env. / ca. 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7260'15=15</td>
<td>Classic Spray</td>
<td>POM</td>
<td>env. / ca. 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7270'15=15</td>
<td>Classic Spray</td>
<td>POM</td>
<td>env. / ca. 12</td>
<td></td>
</tr>
</tbody>
</table>

Packaging: 5000 units per carton type 3010 / carton's weight: approx. 14 kg

<table>
<thead>
<tr>
<th>Spray Type</th>
<th>Part no.</th>
<th>Part name</th>
<th>Material</th>
<th>g/10s at 9 bars</th>
<th>Average flow rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapo</td>
<td>7220'15=15</td>
<td>Vapo Spray</td>
<td>POM</td>
<td>env. / ca. 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7221'15=15</td>
<td>M1</td>
<td></td>
<td>env. / ca. 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7222'15=15</td>
<td>Vapo Spray</td>
<td>POM</td>
<td>env. / ca. 7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7211'15=15</td>
<td>Vapo Spray</td>
<td>POM</td>
<td>env. / ca. 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7223'15=15</td>
<td>Vapo Spray</td>
<td>POM</td>
<td>env. / ca. 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7224'15=15</td>
<td>Vapo Spray</td>
<td>POM</td>
<td>env. / ca. 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7225'15=15</td>
<td>Vapo Spray</td>
<td>POM</td>
<td>env. / ca. 12</td>
<td></td>
</tr>
</tbody>
</table>

Packaging: 3400 units per carton type 3010 / carton's weight: approx. 12.5 kg

» Product key parameters for spray with BOV and spray nozzle

- 100% homogeneous
- viscosity max: 8 - 10 cps
- surface tension: 30 - 40 dyn/cm
Accessories for Bag On Valve

dispensing actuators

<table>
<thead>
<tr>
<th>Classic Gel</th>
<th>Part no.</th>
<th>Part name</th>
<th>Material</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7401*15</td>
<td>Classic Gel T3</td>
<td>POM</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>7402*15</td>
<td>Classic Gel T5</td>
<td>POM</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>7403*15</td>
<td>Classic Gel T7</td>
<td>POM</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>7404*15</td>
<td>Classic Gel T10</td>
<td>POM</td>
<td>white</td>
</tr>
</tbody>
</table>

**Packaging:** 4500 units per carton type 3010 / carton's weight: approx. 15 kg

<table>
<thead>
<tr>
<th>Vapo Gel</th>
<th>Part no.</th>
<th>Part name</th>
<th>Material</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7413*15</td>
<td>Vapo Gel 23</td>
<td>POM</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>7414*15</td>
<td>Vapo Gel 35</td>
<td>POM</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>7415*15</td>
<td>Vapo Gel 47</td>
<td>POM</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>7416*15</td>
<td>Vapo Gel 62</td>
<td>POM</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td>7418*15</td>
<td>Vapo Gel 167</td>
<td>POM</td>
<td>white</td>
</tr>
</tbody>
</table>

**Packaging:** 3400 units per carton type 3010 / carton's weight: approx. 12.5 kg

**CAUTION:** Vapo Spray must be combined with Vapo Ring & Vapo Cap and with Aluminium Caps only.

<table>
<thead>
<tr>
<th>Anastasia Gel with cap</th>
<th>Part no.</th>
<th>Part name</th>
<th>Material</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7650</td>
<td>Anastasia 23 + Cap</td>
<td>PP</td>
<td>actuator white, cap transparent glossy or transp. frosted **</td>
</tr>
<tr>
<td></td>
<td>7661</td>
<td>Anastasia 35 + Cap</td>
<td>PP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7652</td>
<td>Anastasia 47 + Cap</td>
<td>PP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7653</td>
<td>Anastasia 62 + Cap</td>
<td>PP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7654</td>
<td>Anastasia 167 + Cap</td>
<td>PP</td>
<td></td>
</tr>
</tbody>
</table>

**Packaging:** 2250 units per carton type 3008 / carton's weight: approx. 10.5 kg

**CAUTION:** Anastasia must be combined with Aluminium Cup and Aluminium Caps only.

**Remarks:** Anastasia is also available in Spray version.

Product key parameters for dispensing with BOV and gel actuator

- 100% homogeneous
- Viscosity max: like shaving gel (need of dip tube in the bag to optimize evacuation rate)

Accessories for Bag On Valve
caps / rings

<table>
<thead>
<tr>
<th>Vapo Ring + Vapo Cap 33</th>
<th>Part no.</th>
<th>Part name</th>
<th>Material</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7812</td>
<td>Vapo Ring + Vapo Cap 33</td>
<td>Ring: PE Cap: PP</td>
<td>Ring: white Cap: transp. glossy</td>
</tr>
</tbody>
</table>

**Packaging:** 1700 units per carton type 3008 / carton's weight: approx. 8 kg

**CAUTION:** compatible with Vapo Spray or Vapo Gel and with Aluminium Cup & Caps only

<table>
<thead>
<tr>
<th>Vapo Ring + Vapo Cap 25</th>
<th>Part no.</th>
<th>Part name</th>
<th>Material</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7822</td>
<td>Vapo Ring + Vapo Cap 25</td>
<td>Ring: PE Cap: PP</td>
<td>Ring: white Cap: transp. frosted</td>
</tr>
</tbody>
</table>

**Packaging:** 2000 units per carton type 3008 / carton's weight: approx. 8.4 kg

**CAUTION:** compatible with Vapo Spray or Vapo Gel and with Aluminium Cup & Caps only

<table>
<thead>
<tr>
<th>Vapo Ring + Vapo Cap 31 round</th>
<th>Part no.</th>
<th>Part name</th>
<th>Material</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7843</td>
<td>Vapo Ring + Vapo Cap 31 round</td>
<td>Ring: PE Cap: PP</td>
<td>Ring: white Cap: transp. frosted</td>
</tr>
<tr>
<td></td>
<td>7857</td>
<td>Vapo Ring + Vapo Cap 31 round</td>
<td>Ring: PE Cap: PP</td>
<td>Ring: white Cap: transp. glossy</td>
</tr>
</tbody>
</table>

**Packaging:** 2000 units per carton type 3008 / carton's weight: approx. 8.4 kg

**CAUTION:** compatible with Vapo Spray or Vapo Gel and with Aluminium Cup & Caps only

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