



Airless⁺

Drug Delivery Systems
Technology Platform and
Extended Support (ES)



From formulation to patient.

Aptar 
pharma

Airless+ Drug Delivery Systems

Advancing Dermal Drug Delivery

Airless+ offers the pharmaceutical solution for Dermal Drug Delivery

- Precise and reproducible dosing
- Product protection
- Clean and convenient usage
- Our Airless+ range is made of 100% Medical Grade resins

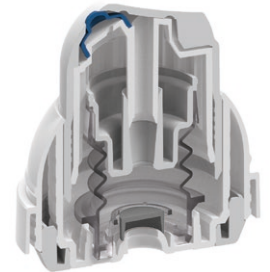
Our Medical Grade resins provide a comprehensive change control package:

- ✓ Long term delivery assurance
- ✓ Full transparency of changes in manufacturing processes and materials
- ✓ Information package on resin materials

Airless+: Ensuring a superior product safety profile

Protects formulations

- Metal and elastomer-free product pathway helps prevent formula oxidation or discoloration
- Market proven self-closing actuator option prevents environmental exposure, ensuring longer product life



Safe and reliable dosing

- Safe usage is secured through reproducible and precise dosing

Child-Resistant and Senior-Friendly (CRSF)

- Easy and intuitive handling for seniors
- Prevents unintended access for children



MiniCR+
Push-and-turn-technology

NanoCR+
Innovative sleeve solution

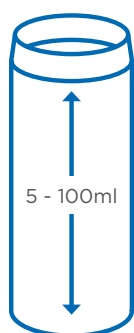


Airless+: Combining advanced design with convenience, for an exceptional user experience

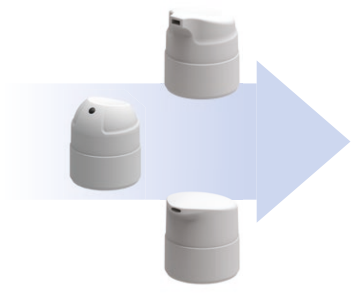


- ✓ Convenient, clean use
- ✓ Reliable dispensing in any position
- ✓ Sleek ergonomic design
- ✓ Robust packaging for improved portability

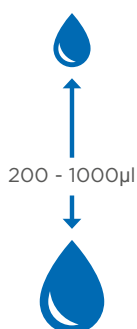
Aptar Pharma's diverse Airless+ range and flexible portfolio enable brand differentiation to meet your dermal drug product needs



Container sizes



Actuator types



Dose volumes

- Extensive combination options
- Suitable for a broad range of viscosities
- Wide variety of actuator shapes and functionalities
- Customizable fill and dose volumes
- Easily adapts to existing filling lines
- Smaller size formats for on-the-go solutions

Airless+: Supporting a more sustainable solution for your dermal drug products

Our Airless+ range helps to reduce the CO₂ footprint of your dermal product with circular drug delivery solutions. Certified for excellent or complete recyclability the Airless+ product range offers also the use of renewable feedstock or bio-based materials.

Certified recyclability by cyclos-HTP
Aptar Pharma's Airless+ range is certified for excellent recyclability*

*DE, NL

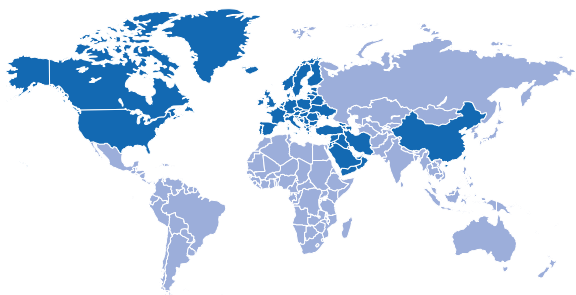
Micro+ futurity™
1st completely recyclable monomaterial Airless+ certified by cyclos-HTP*

Mass balance approach
Aptar Pharma's Airless+ dispensing systems are manufactured at ISCC Plus certified production sites



Airless+ ES (Extended Support): Meeting the changing needs of the global dermal drug market by ensuring patient safety and reducing regulatory risks

Airless+ ES supports the demands of the Pharma market



- Provides comprehensive support for major regulated markets
- Accelerates speed-to-market
- Reduces regulatory-related risks

Airless+ ES offers a broad range of world-class development services and support for your specific product development

- Compatibility and functionality testing
- Extractables information according to USP/ISO available, supporting customers' leachable studies
- Technical and filling support



Airless+ ES includes ongoing support by Aptar Pharma's regulatory experts to derisk and accelerate your drug development projects

- Up-to-date with current pharma regulations
- Supports selection of well-characterized materials
- Relevant USP/ISO test for skin application
- DMF support available



Aptar Pharma is your trusted partner for your next Drug Device Combination product, from development through to filing and approval



21CFR820.30



MDR 2017/745, GSPR

Realize your next Dermal Drug opportunity with our Airless+ technology. Contact us at:
www.aptar.com/products/pharmaceutical/airless-dermal-drug-delivery-systems/

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