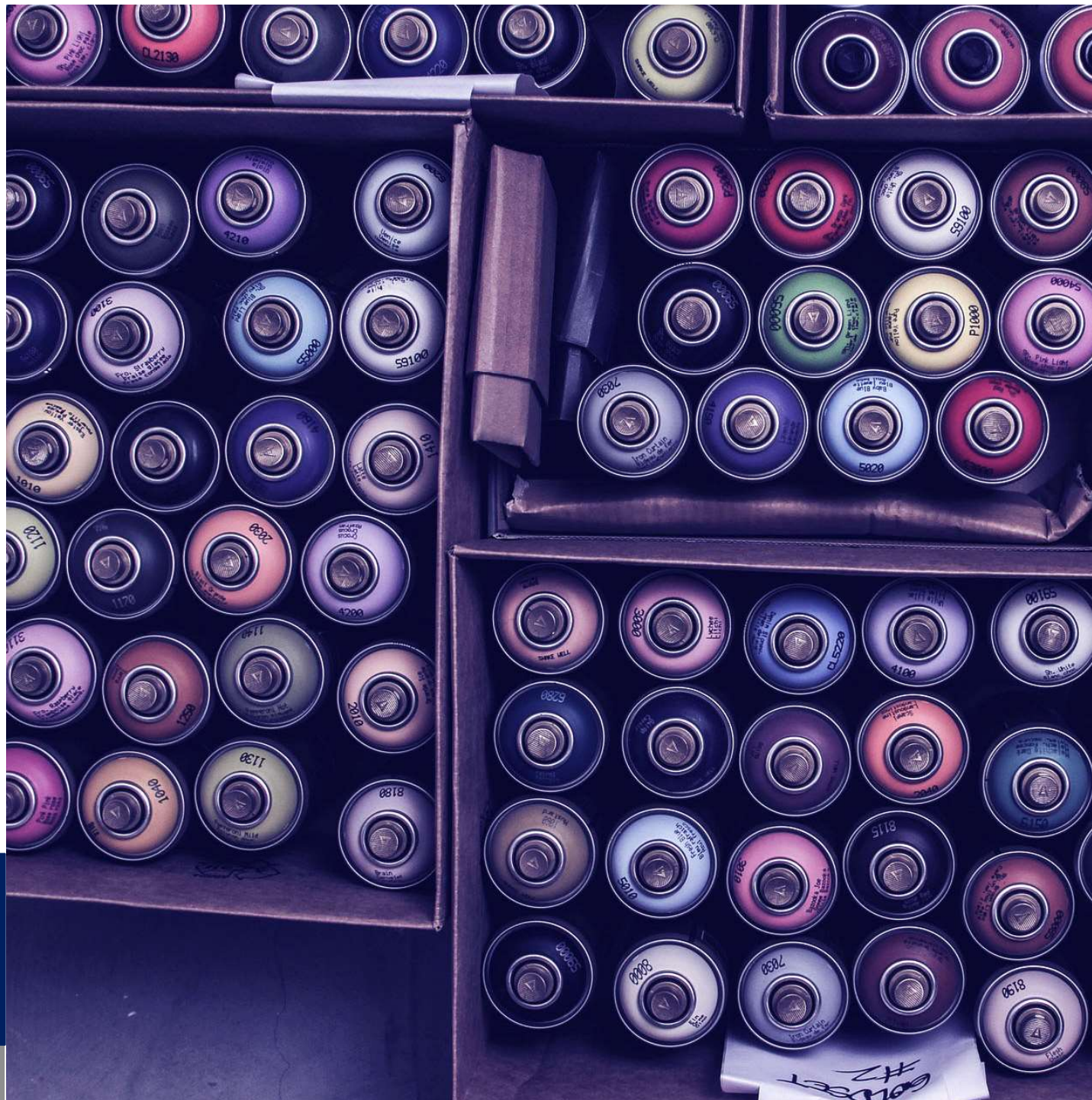


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Aerosol Basics 101 Intro



History of Aerosol

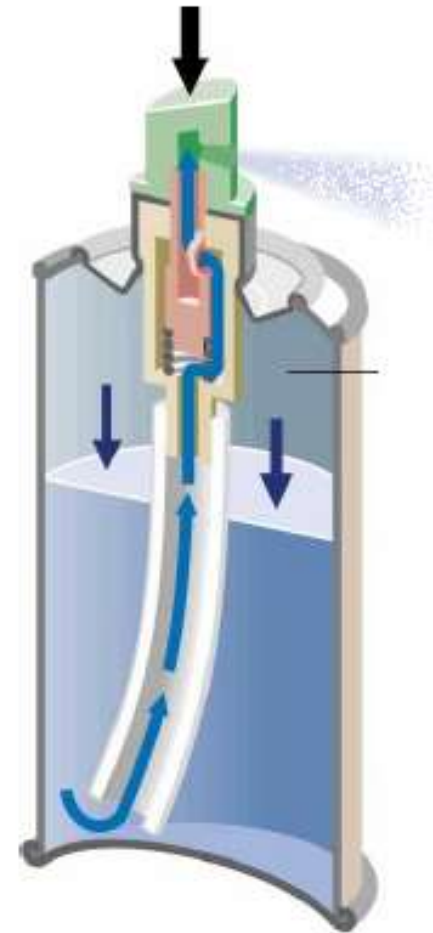
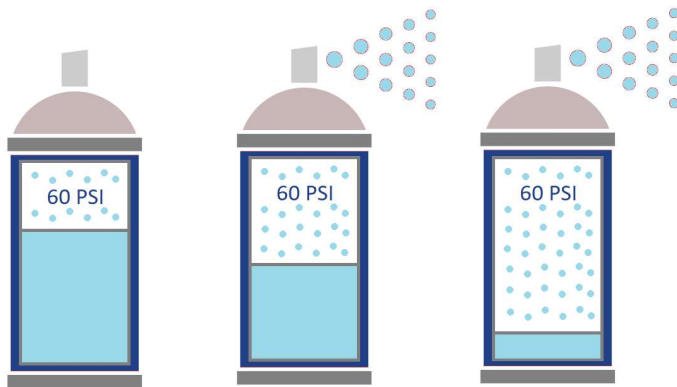
- Erik Andreas Rotheim submits application for aerosol patent in **1926**
- Lyle Goodhue & William Sullivan invented the first aerosol spray can in the form of a **Bug Bomb** in **1941**. Bug spray for mosquitos
- **1949** Robert Abplanalp invented the modern form of the aerosol valve & later created Precision Valve Corp.



Aerosol Operation

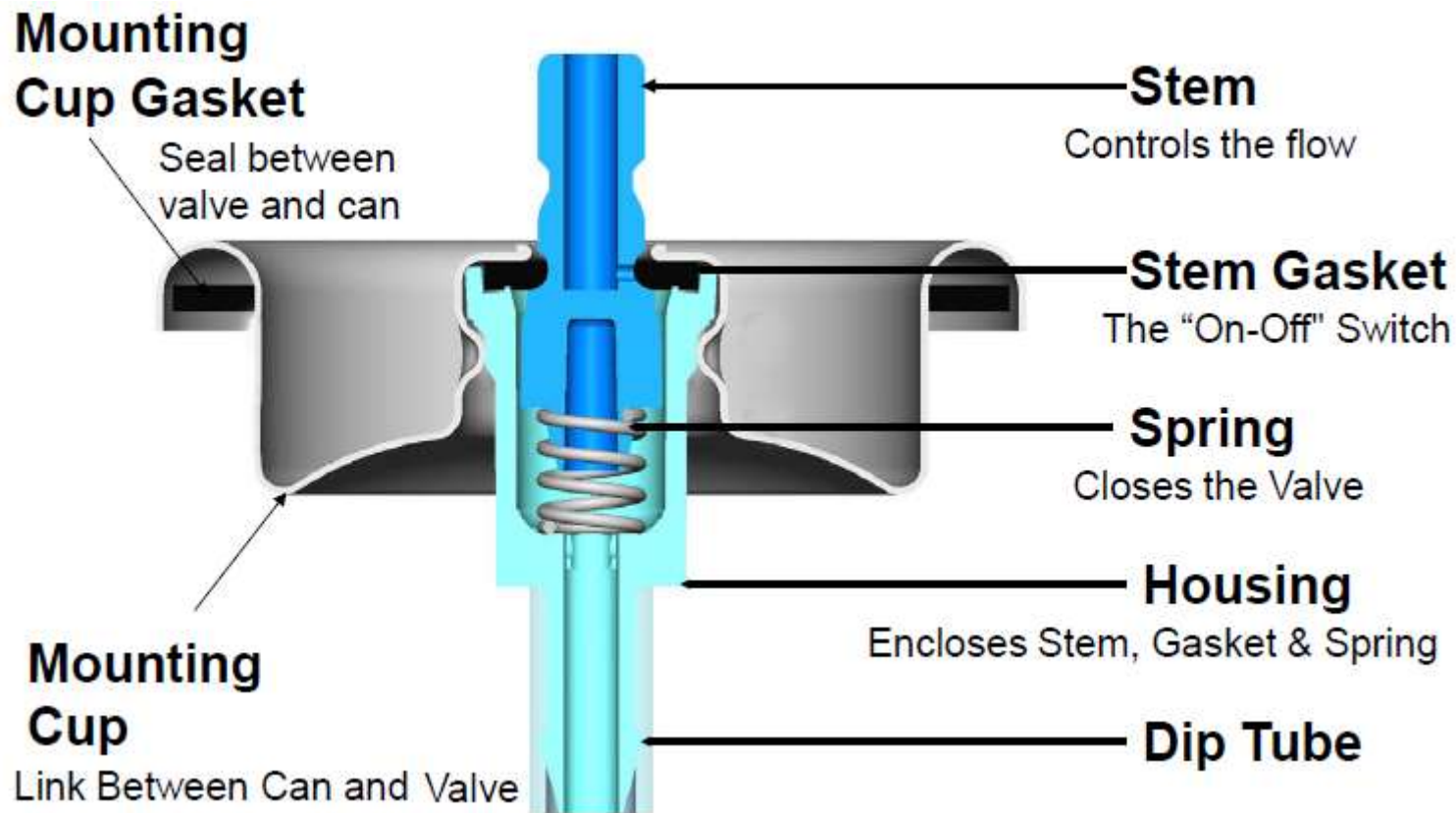
Constant Pressure System

- Propellant in can is in both vapor and liquid at a given vapor pressure with product
- As product is expelled, pressure decreases, change in pressure causes liquid propellant to change to gas until pressure reaches original equilibrium pressure
- Equilibrium pressure is determined by the propellant's vapor pressure



The Aerosol Valve

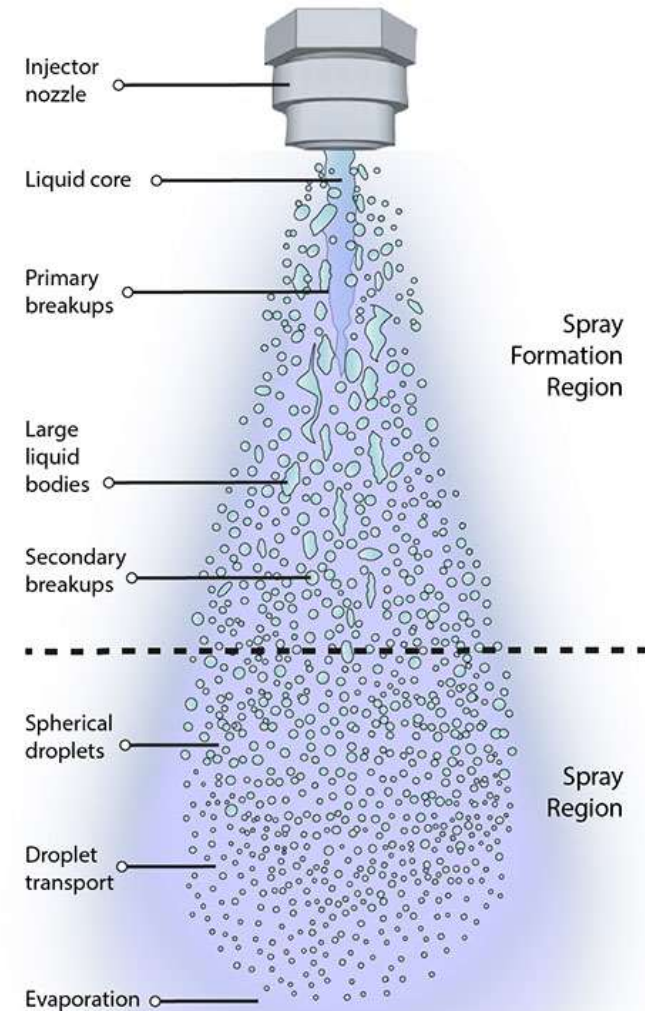
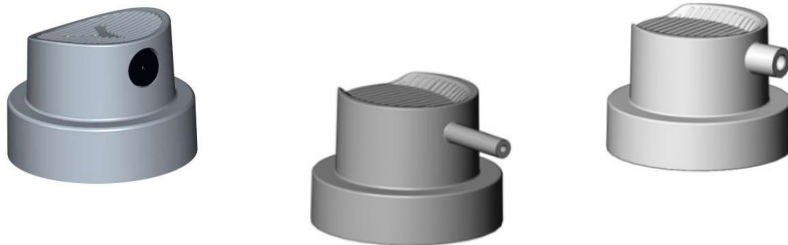
Close-up with Details



The Aerosol Actuator

Basic Information & Details

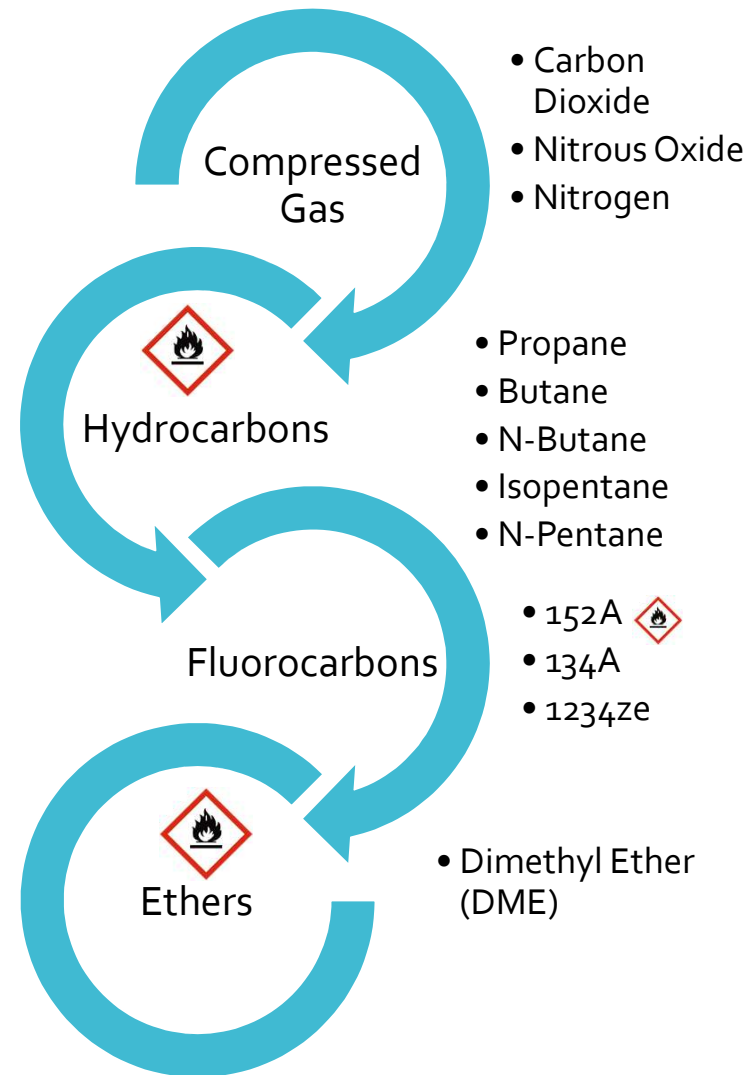
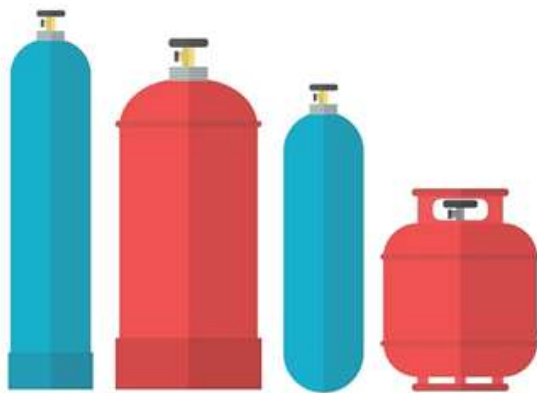
- Actuators can be classified as mechanical (spray) and non-mechanical (stream) break-up units.
- Actuators adjust spray parameters along with the pressure selection based on propellant selection
- They have different orifice sizes and flow designs to create sprays, stream flow, foams and more...



The Propellant Selection

Basic Information & Specs

- Compressed gases used in aerosol decrease in pressure when used. Not continuous pressure as liquid gases are.
- Most Fluorocarbons are non-flammable, non-reactive, and have low-toxicity
- Hydrocarbons can be blended for performance (i.e. A-46 is 15.2% propane and 84.8% isobutane).



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For more information:

info@talaragroup.com

References:

- Lindal North American
- Diversified CPC Int'l
- Wikipedia

** For a full disclosure of references or corrections, please e-mail info@talaragroup.com and reference "Technical Presentations"*

