

Fire-Out



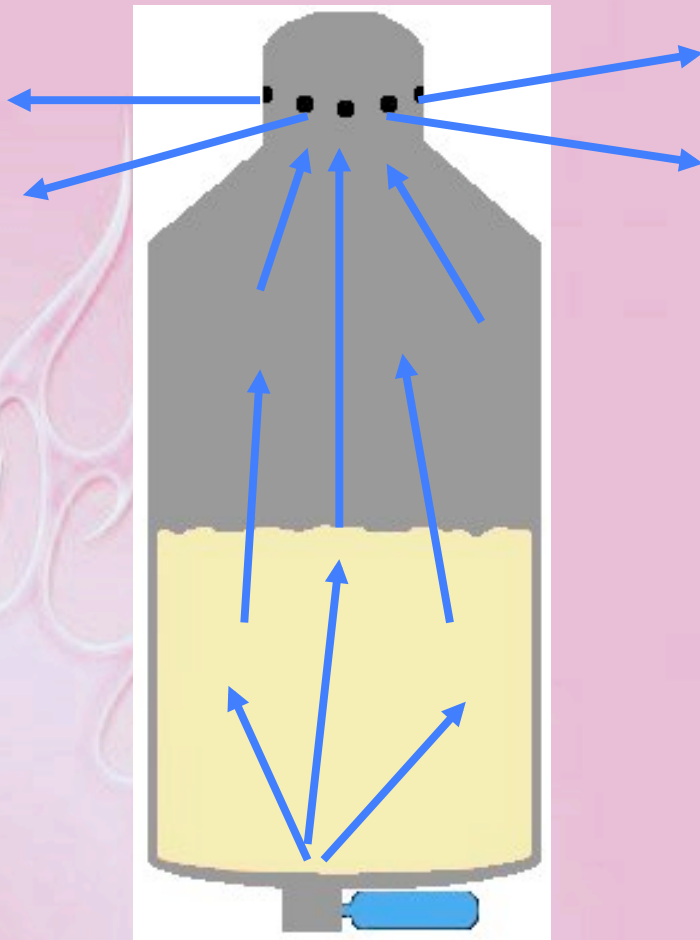
Product Contract

Product Description: Fire Extinguishing Projectile
Market: Home Safety
Estimated Price: \$15-20

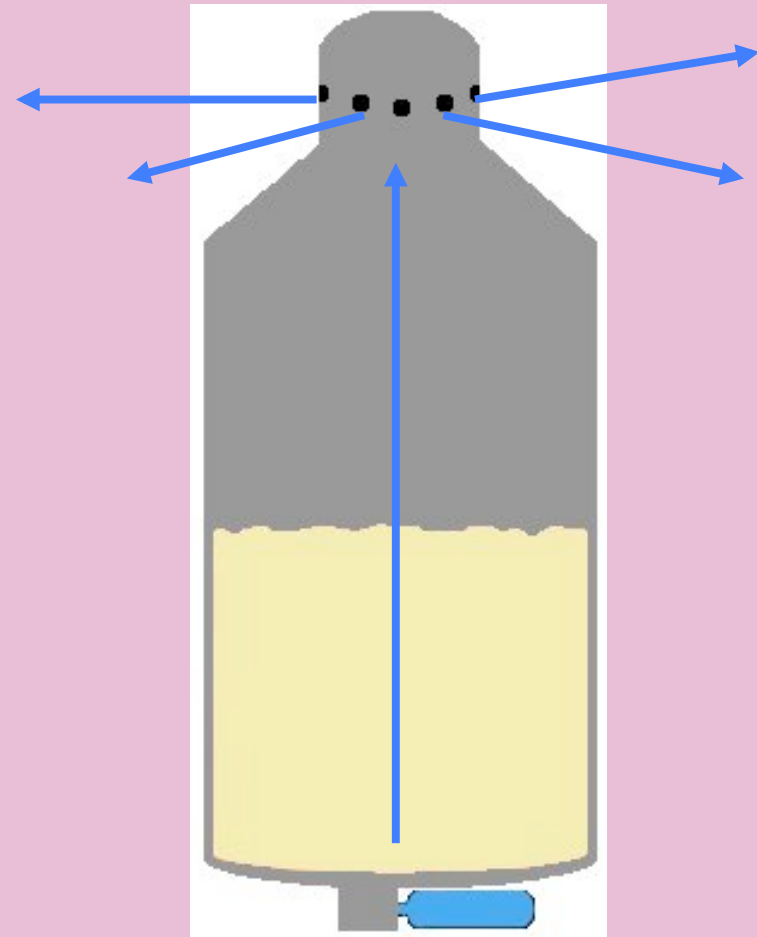
Customer Need	Product Attributes	Engineering Specifications
User activated	Safety	Pin to activate heat trigger
Deploys only in a fire	Safety	Trigger reacts in temperatures >150-175°F
Self-oriented for optimal dispersion	Stability	Counterweight and geometry force into functional position
Comfortable to launch	Weight	Total weight between 1 and 4 lbs
Extinguishes nearby fire	Dispersion	Dry chemical covers 2 foot radius with 1/16" thickness

Dispersion: Venturi Design

Intended Airflow



Actual Airflow



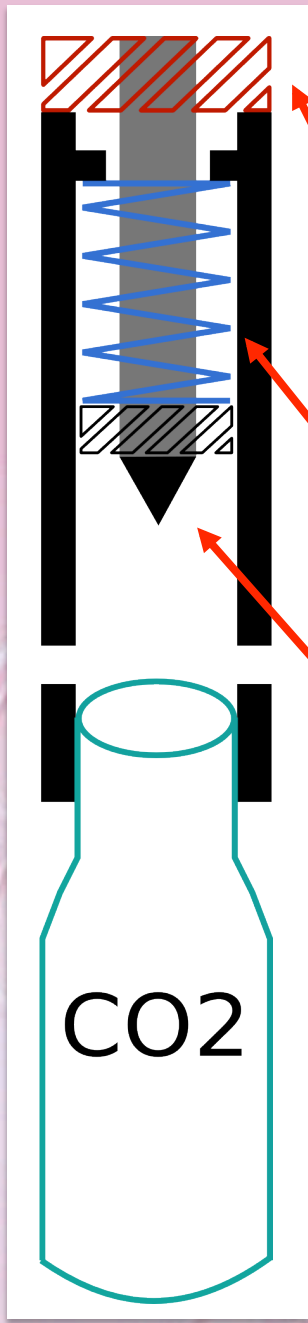
Dispersion: Decreased Volume, Increased Hole Size



Dispersion: Further improvements

- Include a diffuser to spread air flow
- Further Decrease Volume
- Increase Pressure
- Further Increase Hole Size

Triggering



Cerrosafe material melts at 150-175°F

Loaded Spring

Pin punctures CO₂ cartridge

CO₂