#### **Step 1 – Suction**

Vacuum sucks a powder packet into the Main Chamber.

Vacuum

### Step 2 - Output Second Chamber

Transportation Air pushes powder to the Second Chamber and to the gun.

Transportation Air

The complete cycle lasts 0.33 seconds!

> Improved charging and application quality

Main Chamber

Linear powder flow, efficient color change

Consistent performance and powder savings

### Consistent performance and powder savings

- The AP01 pumps thanks to the wear-free Smart Inline Technology can deliver constant powder output for a long period of time
  - No performance decrease due to parts wearing
  - Constant powder output over long time
  - Constant coating thickness
  - Constant powder savings
  - Repeatable coating result
  - Constant quality

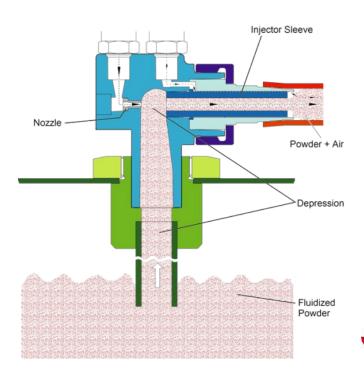


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### Traditional Venturi Technology

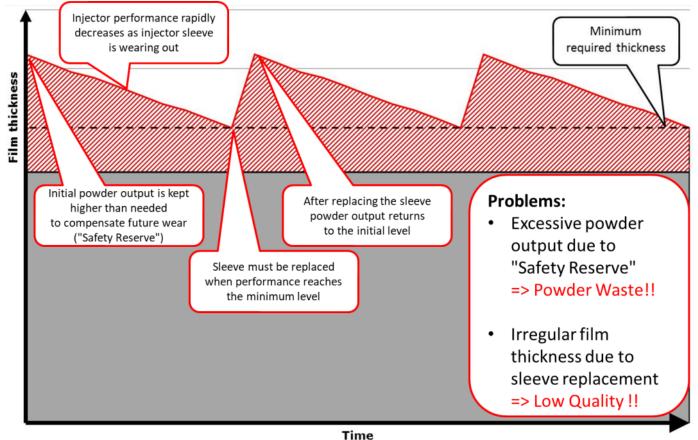
- The injector's nozzle blows compressed air into the Venturi chamber, through the injector sleeve
- This creates depression in the injector chamber that sucks powder from the fluidized hopper
- Powder + air is conveyed to the gun

- Powder progressively wears out the injector sleeve: as injector sleeve wears out, performance decreases!
- Large powder output requires more air through the injector nozzle: possible application problems, lower transfer efficiency!



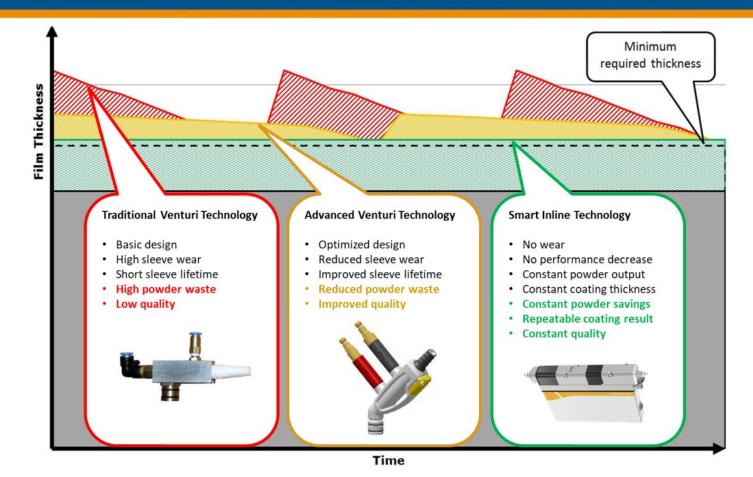
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### Traditional Venturi Technology



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### Consistent performance and powder savings



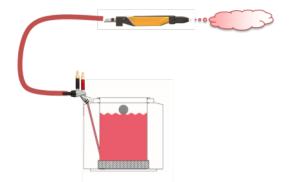
### Improved charging and application quality

- The AP01 pumps thanks to the Smart Inline Technology
  can transport high amount of powder to long distances with just
  minimum amount of air.
  - Easier optimization of powder application
  - Softer and more efficient powder cloud
  - Improved powder charging and transfer efficiency
  - More powder on the parts, less waste in the recovery system
  - Optimal application in all conditions
  - Improved coating performance

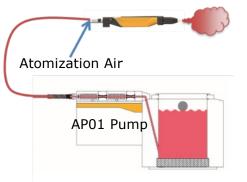


### Improved charging and application quality

- **Venturi Injectors** need larger hoses and higher amount of air to transport powder.
- Excessive air amount necessary with long hoses and high powder output can determine too high powder velocity at the gun nozzle.
- Less efficient powder charging
- Possible application problems
- Reduced transfer efficiency
- More overspray and powder losses

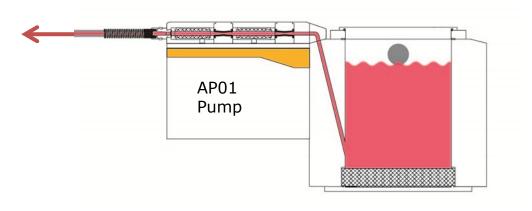


- The **APO1 pumps** conveys the powder to the gun with just a **little amount of air**.
- Optimal atomization air is added at the back of the gun. This allows softer and denser powder cloud even with long hoses and high powder output.
- Ideal powder charging in all conditions
- Optimal application performance
- Highest transfer efficiency
- More powder on parts, less waste



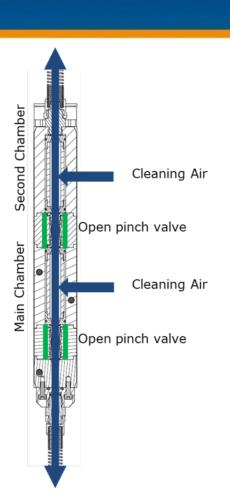
### Linear powder flow, efficient color change

- The AP01 pumps features a straight and linear power path.
- Powder is gently moved always in the same direction, from the hopper to the gun.
- No need for complicated parallel pumping chambers where powder can accumulate.
- The AP01 design is ideal for easy blow-through cleaning.
- The automatic purging process further simplifies the deep cleaning of the pump
- **AP01** offers the best design for color change.



#### Automated purging program

- The AP01 OptiSpray pumps can be cleaned with an automated purging program.
- Cleaning air is introduced in both chambers and flows in both directions.
- The chambers' fluid material is deeply cleaned
- The pick-up hose from the hopper to the pump is purged
- The transport hose from the pump to the gun is purged



### Ideal integration in OptiCenter

- AP01 OptiSpray pumps can be integrated in the OptiCenter for the best operating performance and the easiest cleaning.
- Compact pump positioning for the most efficient powder transport.
- Fresh Powder Feed options for constant application quality.
- Clean environment for easy cleaning and color change.



