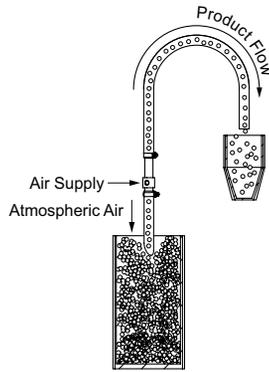


## General Application Information

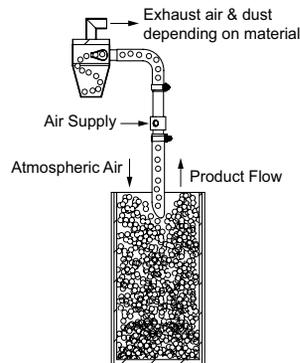
Sizing the correct DF material transfer pump is based on the material density, particle size, transfer rate required (kg/min), elevation and length of transfer line. For application assistance, please contact Vaccon Technical Support. In many cases, customers send product to Vaccon to test at our in-house test facility. Ask about our 30-Day Test & Evaluation policy.

## Transferring Bulk Materials:



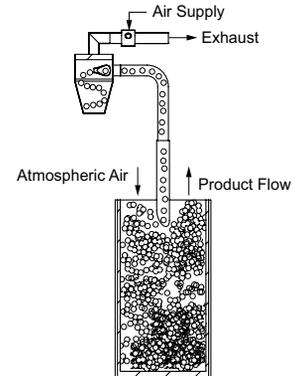
**Basic Hopper**

Place pump about 1/3 the overall distance from the suction. Allow the compressed air powering the pump to assist in pushing the material to the collection hopper.



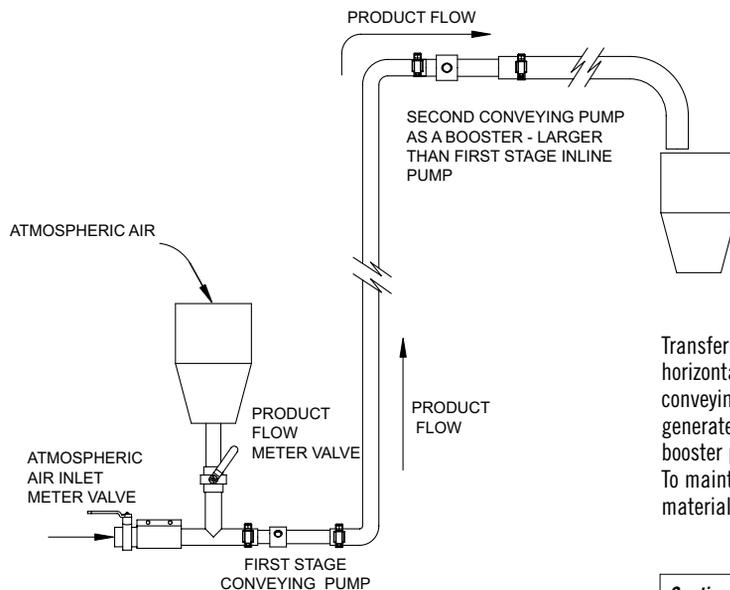
**Hopper Inlet**

Induced atmospheric air, compressed air and the material being transferred enter the collection hopper, where the material falls by gravity. The air vents out the top of the hopper. To capture lighter-than-air materials, connect a filter or dust collector to the hopper outlet.



**Hopper Outlet**

The DF pump creates a vacuum in the collection hopper causing the material to flow up the conveyor tube into the collection hopper. Compressed air doesn't mix with the material, helping to prevent a cloud from forming when transferring fine, light powders. Material entering the hopper falls to the bottom faster due to the vacuum in the collection hopper. To reduce noise, add an optional silencer to the DF pump exhaust.

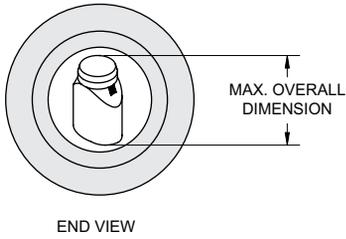


**Hopper to Hopper Butterfly Extended Distance**

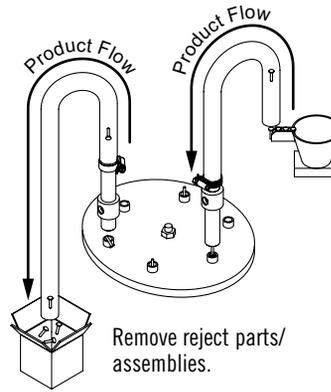
Transferring bulk and individual items vertically and horizontally over long distances may require a second conveying pump as a booster pump. To accept the flow generated by the first pump and to add power, add a booster pump that is larger than the first-stage pump. To maintain the proper balance between air intake and material intake use a valve to meter both.

**Caution:** When conveying materials through plastic transfer lines, you must ground the transfer line to dissipate the static charge that develops from the friction of the air and material flowing over the transfer line surface.

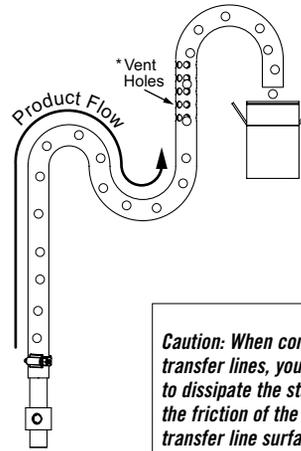
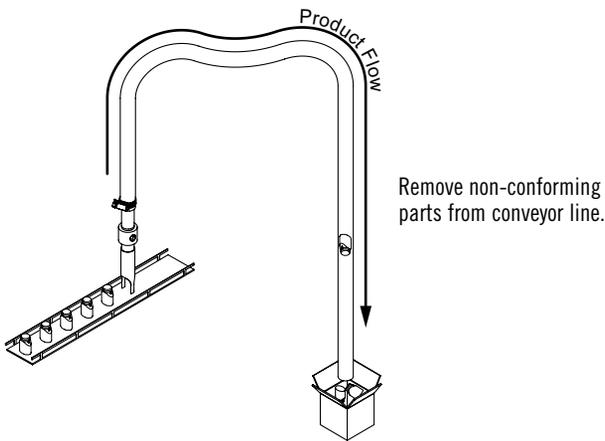
## Transferring Complex Shapes & Individual Objects:



To size a DF pump for transferring individual items, choose the pump with an inside diameter just slightly larger than the largest dimension of the object.



Load parts for assembly from a vibratory bowl feeder.



**Design Tip:** To prevent damage or to match the assembly speed, decrease the transfer speed by introducing a vertical bend into the tube, allowing gravity to work against the direction of travel.

\* To reduce transfer speed further, add holes in the tube to allow the air to vent.

**Caution:** When conveying materials through plastic transfer lines, you must ground the transfer line to dissipate the static charge that develops from the friction of the air and material flowing over the transfer line surface.

## Trim, Selvedge and Fiber Collection:

