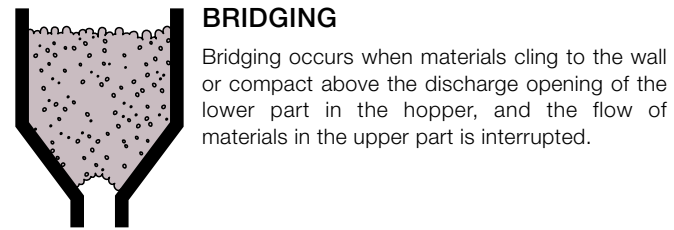
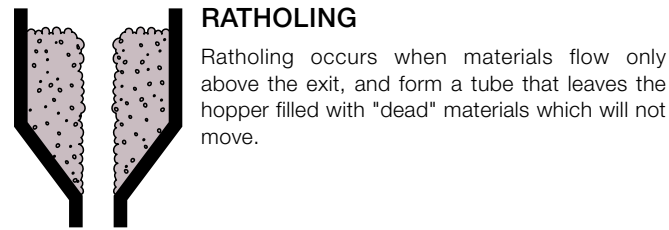


Flow Aid System

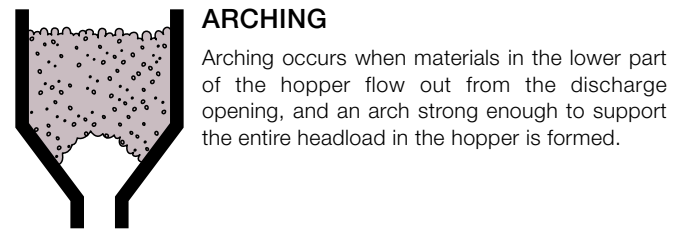
TROUBLE PHENOMENON



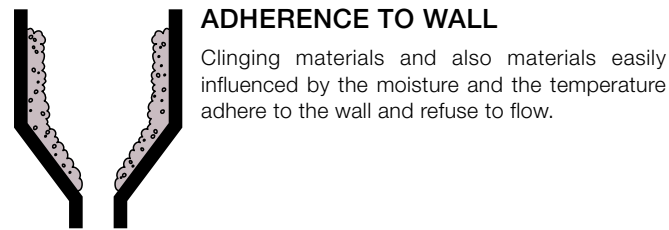
BRIDGING
Bridging occurs when materials cling to the wall or compact above the discharge opening of the lower part in the hopper, and the flow of materials in the upper part is interrupted.



RATHOLING
Ratholing occurs when materials flow only above the exit, and form a tube that leaves the hopper filled with "dead" materials which will not move.

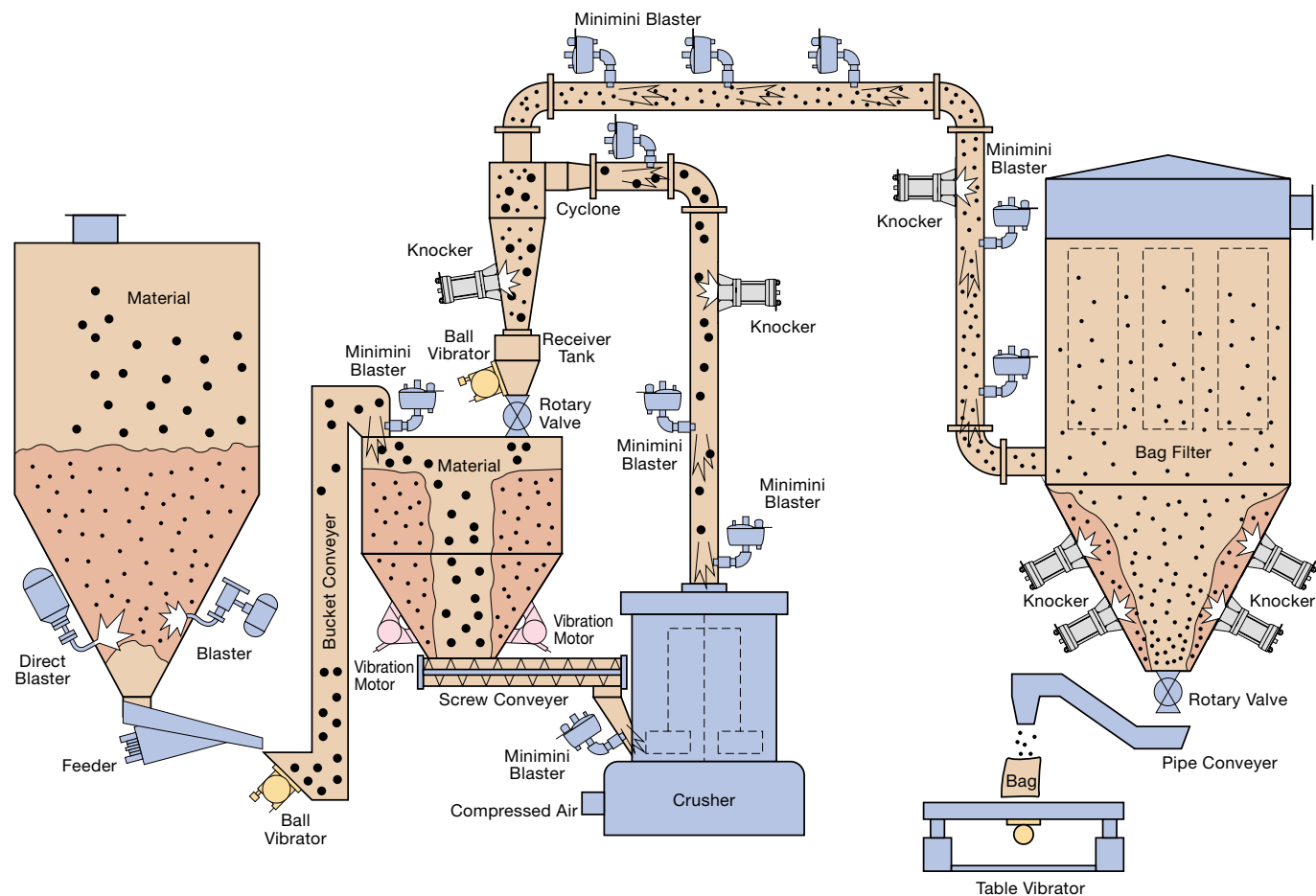


ARCHING
Arching occurs when materials in the lower part of the hopper flow out from the discharge opening, and an arch strong enough to support the entire headload in the hopper is formed.



ADHERENCE TO WALL
Clinging materials and also materials easily influenced by the moisture and the temperature adhere to the wall and refuse to flow.

EXAMPLE OF TYPICAL FLOW AID SYSTEM INSTALLATION



Knocker / Reference of installation



Food and pharmaceutical plant
SS304 Storage tank

Clinging and compacted materials are broken loose by the impact force of the knocker piston. The impact force can be adjusted as necessary by adjusting the air pressure.

Features

1. Impact force can be adjustable by input pneumatic pressure. (0.3Mpa – 0.7Mpa)
2. Relay piping function allows operation of multiple knockers by one valve.
3. Simple design, excellent durability and easy maintenance.
4. Simple working principle eliminates complicate operation circuit. Remote operation is also easy.



Iron works
Coal Banker

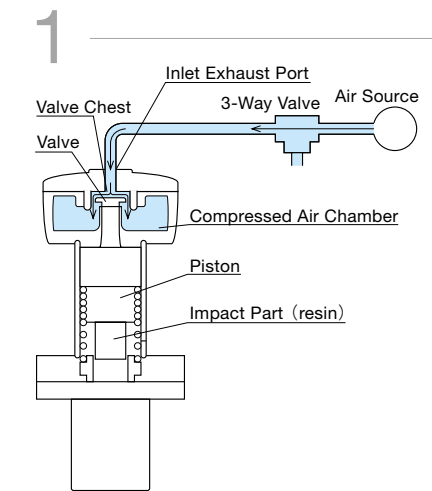


Petrochemical plant
Storage tank
Plastics pellet

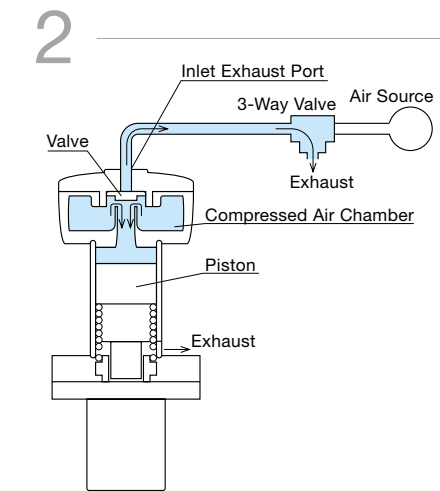


Flour mill plant
Chute

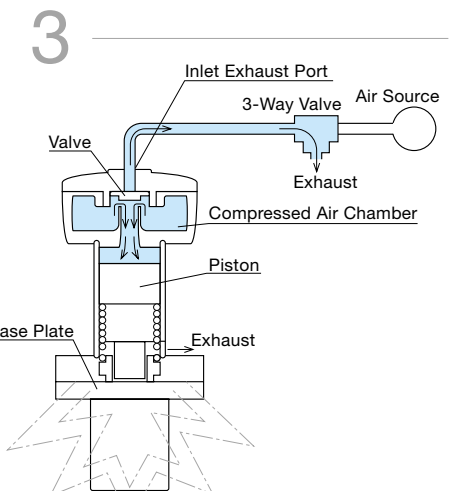
Operating principle



Compressed air delivered to Knocker is supplied into the valve chest at first, pushes the valve down, and is accumulated in the compressed air chamber.



On operating the 3-way valve and exhausting air in the valve chest, compressed air in the chamber makes the valve travel upward.



As soon as the valve moves, compressed air in the chamber forces piston down energetically, and beats base plate. Its percussive force eliminates clinging and blocking of materials.