

A typical vacuum conveying system

- A.** PIAB vacuum pump
- B.** Bottom valve
- C.** Inlet container
- D.** Pipeline (hose or pipe system)
- E.** Feed station
- F.** Filter
- G.** Air shock tanks
- H.** Control system



1. Vacuum is generated by a compressed air-driven PIAB vacuum pump (**A**). The pump can easily be automatically controlled. Since it has few moving parts, the pump is virtually maintenance-free.
2. The bottom valve (**B**) is closed, and vacuum is raised in the container (**C**) and the conveying pipeline (**D**).
3. From the feed station (**E**) the material is drawn into the conveying pipeline and then on to the container.
4. The filter (**F**) prevents dust and fine particles from being drawn into the pump and escaping into the surroundings.
5. During the suction period, the air shock tanks (**G**) are filled with compressed air.
6. When the material container is full, the vacuum pump is stopped. The bottom valve opens and the material in the container is discharged. At the same time, the compressed air in the filter tank is released and cleans the filter.
7. When the pump is restarted, the process is repeated and a new cycle begins. The suction and discharge times are normally controlled by pneumatic or electrical control systems (**H**).