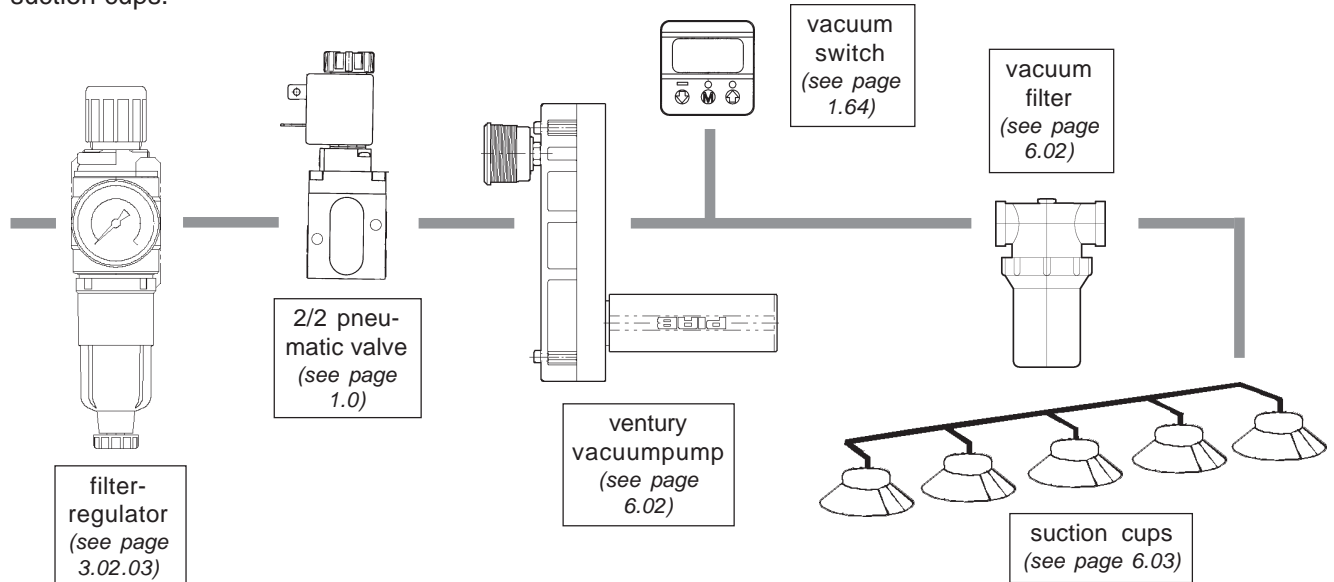
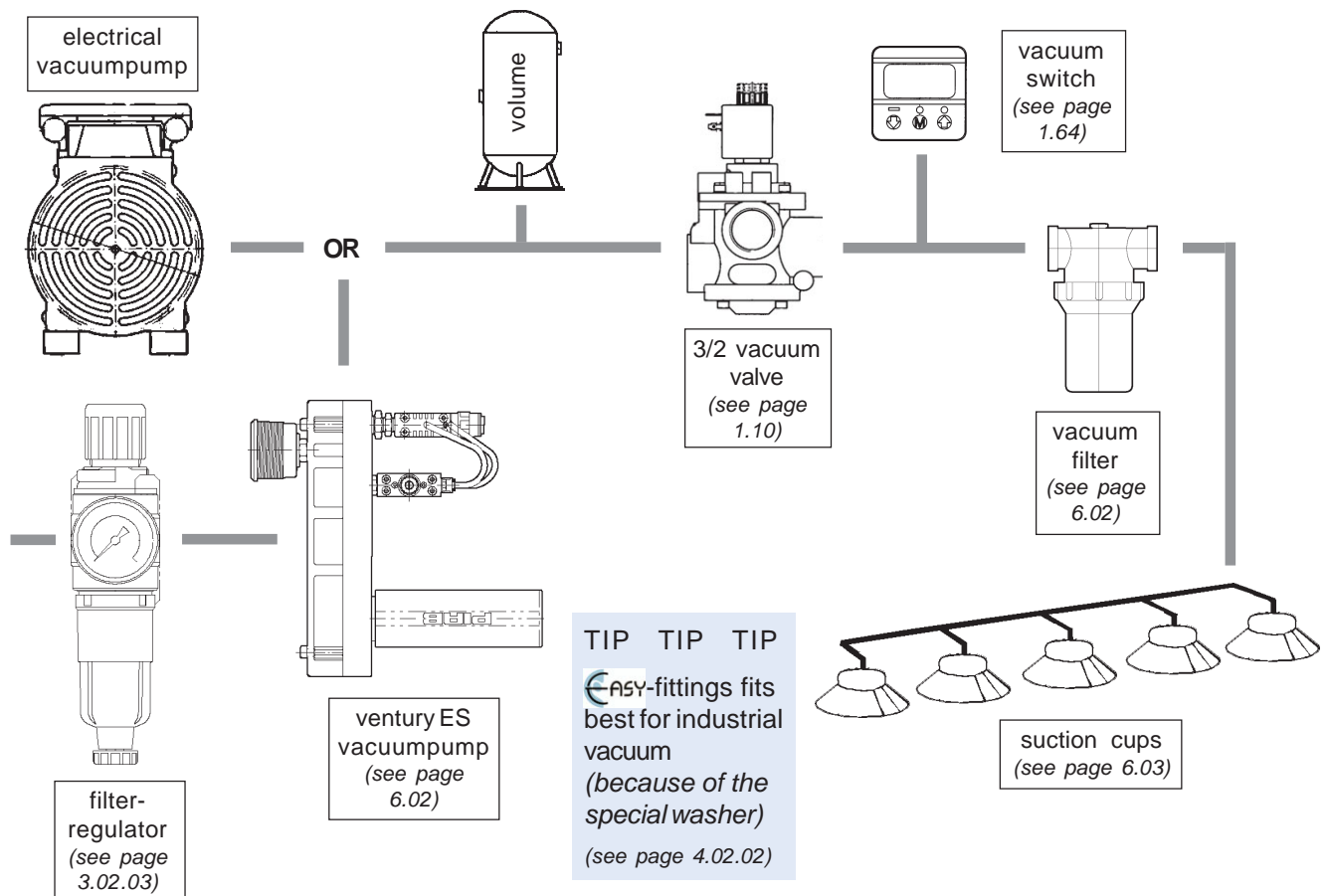


HOW TO BUILD A VACUUM SYSTEM

1. **With a multi-ventury vacuum pump:** the 2/2 pneumatic valve activates the pump (energy is only consumed when vacuum is needed); by cutting off the pump, atmospheric airflow passes from the pump outlet towards the suction cups.



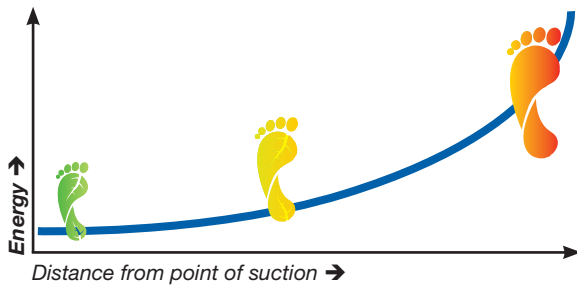
2. **With an electrical vacuum pump** (continue energy consumption) OR **multi-ventury pump with ES** (Energy Saving: energy is only consumed when vacuumflow is needed): vacuum is always available, the 3/2 vacuum valve gives the command; by closing the valve, atmospheric airflow passes from the valve exhaust towards the suction cups.



An eco-friendly vacuum system

By never using more energy than absolutely necessary, companies can reduce their carbon footprint as well as their costs. Piab can work with you to achieve the lowest possible energy consumption.

Environmental index



Your pump will require less compressed air when placed close to the point of suction, thus reducing CO₂ emissions and energy consumption.

The graph demonstrates the relationship between environmental impact and the distance of the pump from the point of suction.

Best to use a decentralized vacuum system

A decentralized system with the vacuum pump/cartridge placed directly at the point of suction eliminates the risk of loss in the vacuum piping and the need for expensive, oversized components.

- ▶ Lowest energy usage
- ▶ Fastest cycle time
- ▶ Safest product handling
- ▶ Most flexible design for zoning
- ▶ Easiest troubleshooting
- ▶ Independently working suction cups
- ▶ Most consistent/even performance



If not, design a centralized vacuum system

A centralized vacuum system is designed to have one vacuum source for multiple suction points.

- ▶ Easy installation
- ▶ Easy vacuum sensing and controls
- ▶ Light end-of-arm tooling
- ▶ Simple filtration options
- ▶ Some loss in system performance due to distance

