

## Duct Design: Clean Room Vent P-174

Design of ducting for Clean Room Applications – GMP Class A, B, C or D or according to ISO16644 Classification. P-Engineering designs ducting system for lowest possible pressure loss (SEL-value) with regards to

- Avoiding Carnot Losses and generally optimum design
- Optimizing Silencer Baffle Design
- Optimized Guide Vane Design and placement in Duct.

Design output are:

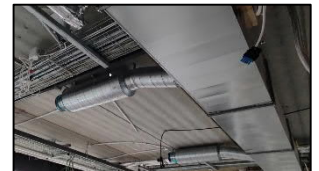
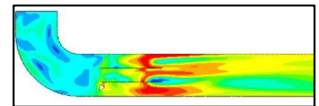
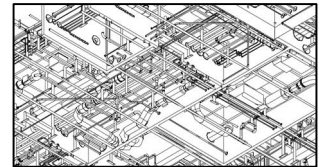
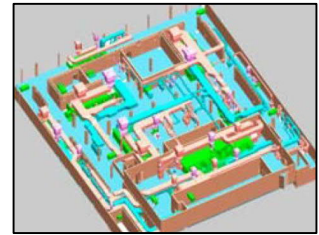
- PID
- 3D Arrangement Drawings
- 2D Arrangement Drawings
- Humidifiers – Water & Steam
- Filters – HEPA
- Sound Calculations
- Sound Attenuators
- BoQ – Bill of Quantities
- Detail Erection Drawings.
- Support Specification
- Fire and Smoke Control Damper Specification.
- Functional Descriptions
- VAV Damper Specification
- Insulation Specification
- Cleaning philosophy and Inspection Hatch placement

P-Engineering uses e.g.

- AVEVA PDMS Software for 3D design
- P-Engineering Application for Pressure Loss Calc.

Contact Information:

Christian Pallesen; +45 2526 8805; [cp@p-engineering.dk](mailto:cp@p-engineering.dk)



*Top: Vaccine Factory (US) designed for Pharmadule – [www.pharmadule.com](http://www.pharmadule.com) & Ventilation for AGC's Søborg Facility (DK) – [www.agcbio.com](http://www.agcbio.com).  
Middle: CFD investigation for Flow Optimization.  
Bottom: Various ventilation details.*