

Wind tunnel D320 for Flow Sensor Calibration

This is an open-jet recirculating wind tunnel of „Göttinger“ design. The flow velocity is continuously adjustable from 0,1 to 70m/s, using an electronic control unit. The air flow is energised via a single-stage high efficiency radial fan.

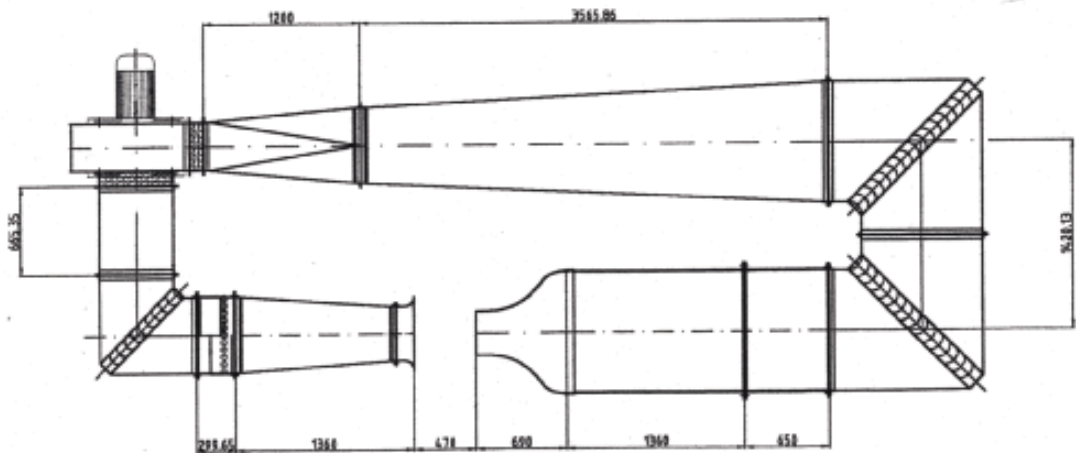
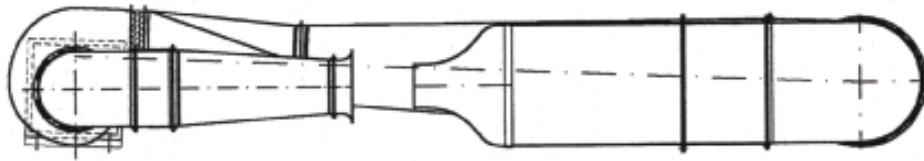
Thanks to its compact construction, the average velocity wind tunnel is an general-purpose device. It is not only ideally suited for qualitative and quantitative flow investigations, but can also be put to good effect for educational and research purposes. Main application is the calibration of flow sensors.

Specification:

- Average velocity wind tunnel, installable vertically or horizontally
- Göttinger design with open test section
- The tunnel is made of galvanised steel plate and PVC pipes.
- The convergent is made of GRP.
- The fan, diffuser and guide vanes are in galvanised steel.
- Differential pressure ports at the intake and exit of the convergent, through a circular manifold.



Wind tunnel D320 with LDA for profile measurements



- Power: $P_w = \text{ca. } 12 \text{ KW, } 400\text{V}$
- DC motor with tachogenerator
- Accuracy of the Tachogenerator by factory adjustment 1%
- Repeatability of the tacho signal $\pm 0,1\%$
- RPM deviation better than 0,1%
- Exit diameter of the convergent $d = 320 \text{ mm}$
- Test section length: $l = 468 \text{ mm}$
- Maximum velocity: $v = 70 \text{ m/s}$
- Turbulence level at 20m/s: $Tu < 0,8\%$
- Contraction ratio: 8

Accuracy Certification: We offer on request a calibration certificate for the accuracy of the flow velocity measured by the LDA system (deviation of the fringe distance inside the measuring volume). The certificate is delivered by the Physikalisch Technische Bundesanstalt (PTB).

