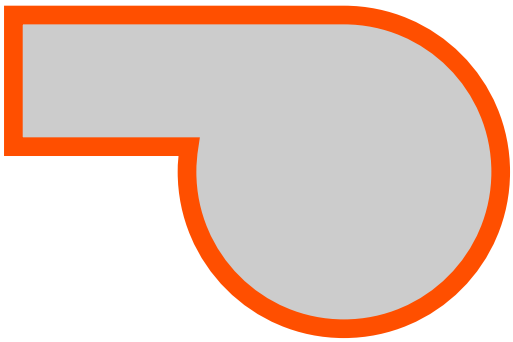
Air Blower
for CD 3002



Your eye in hell

Siemens Laser Analytics

CD 3002 Air blower manual
Document number: CID 3002-1110 Rev. 1A

Content

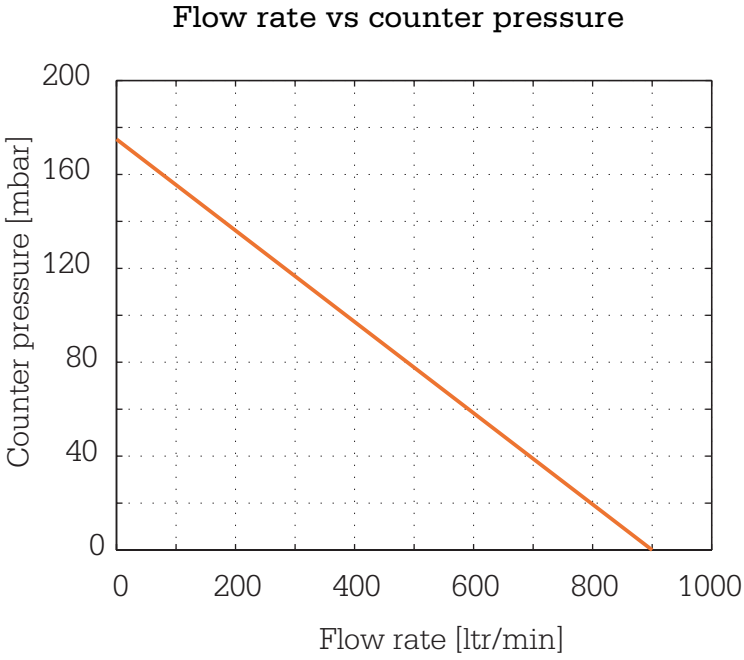
1. Purging of CD 3002 using air blower

1.1 General

In application with high dust load and ash build-up in front of the lens in CD 3002 very high purging flows may be necessary. For these applications an air blower producing flow rates in the 1000 ltr/min. range can be used. A typical application where this is preferable is in MWI (municipal waste incineration). This manual relates to the installation and operation of the air blower set supplied by Siemens Laser Analytics.

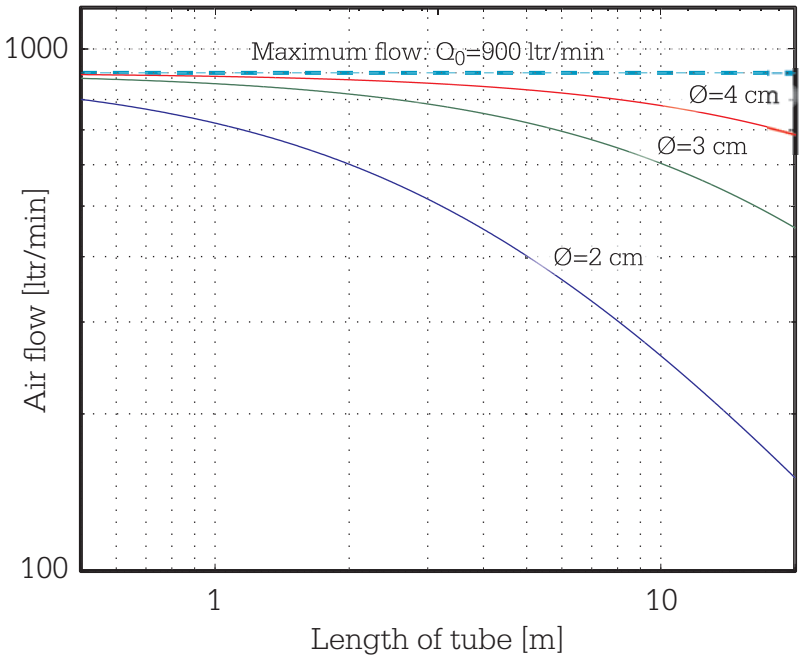
1.2 Installation

An important issue is the counter pressure build up at the output of the air blower. It is vital to keep this as low as possible since the air flow is decreasing when the counter pressure increases – se the graph below.



Flow rate vs counter pressure.

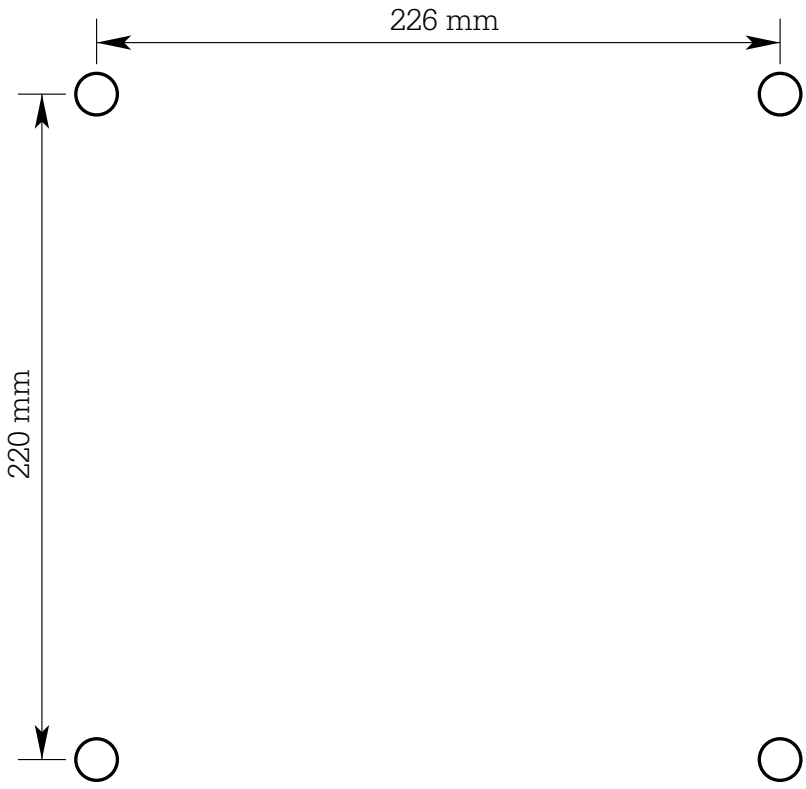
A large cross section of the air blower output and a short tube is parameters that affects this in a positive direction. If a long tube must be used – make sure it has a large diameter. The following diagram illustrates the flow changes with different output tubes and may serve as a guide when the set-up is designed. If the air blower is serving two sensors it is very important that the lengths of the tubes to the two sensors are equal. This ensures that the air is split 50/50 between the two.



Flow rate vs length of the tube between the air blower and the sensor.

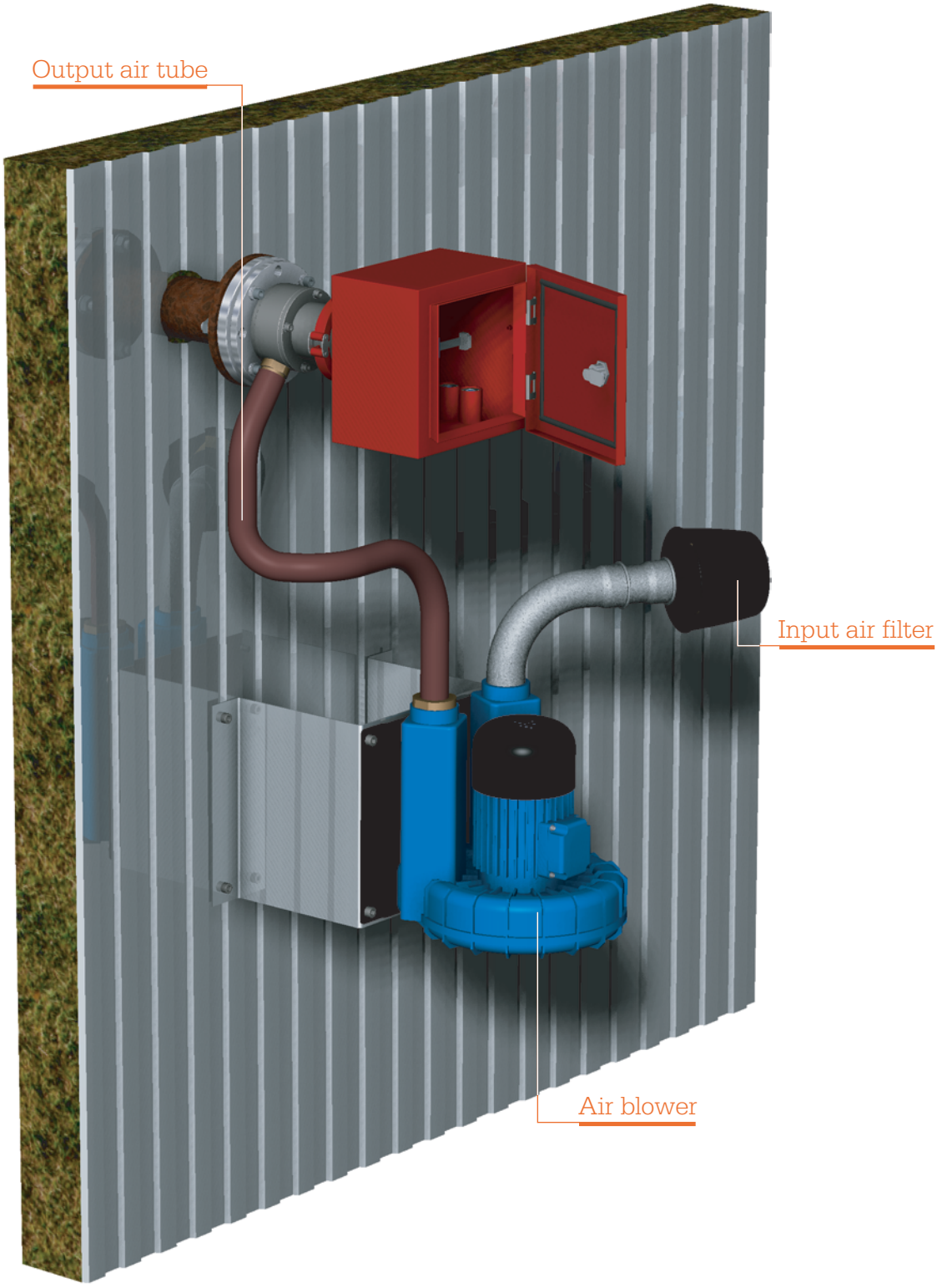
Mechanical

The air blower should be monted close to the sensor using bolts of the dimension M10 on the following positions



Position of mounting holes.

The position of the air blower should either be horizontal with the mounting plate facing downwards or vertical with the air exit facing upwards. The figure below shows a good way of setting up the sensor with an air blower.



Example set-up of CD 3002 with air blower.

1.3 Maintanance

The major maintanance on the air blower is to change the input filter at a regular interval. The time between changes is totally dependent on the environment in which the air blower operates. The inlet under-pressure (directly after the filter) will reveal the condition of the filter and can be used to monitor this. Siemens Laser Analytics can provide suitable equippment for this.