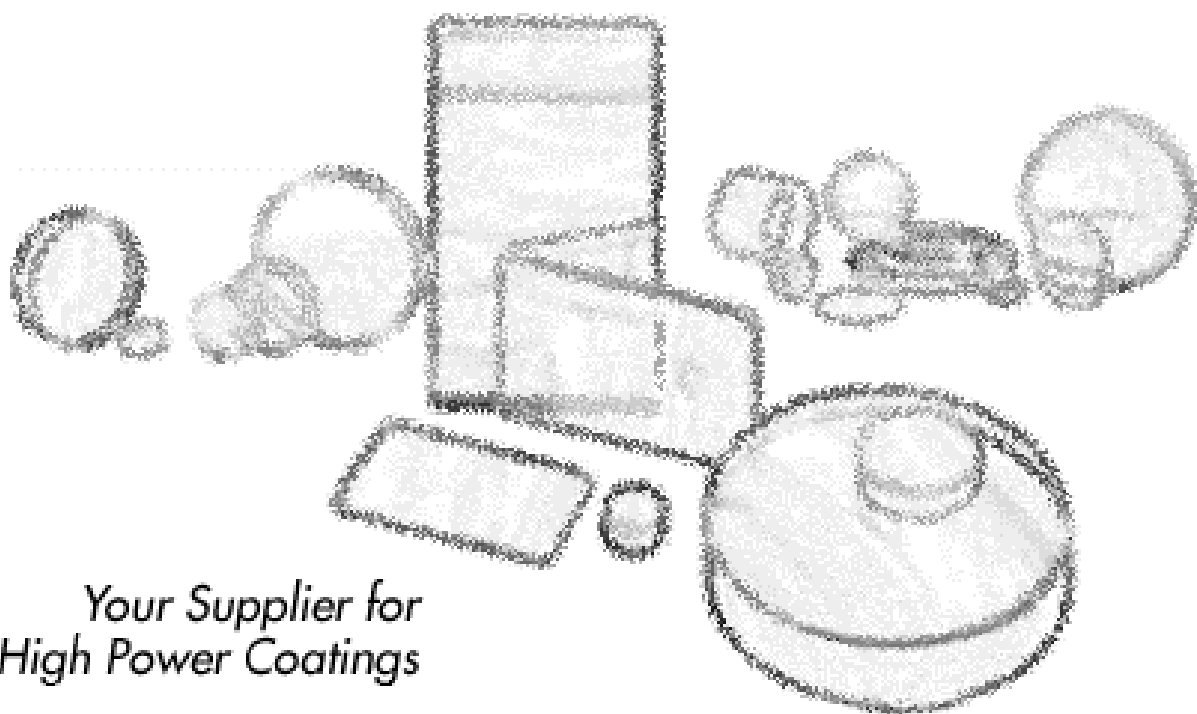




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AVACS

Version 2.0



*Your Supplier for
High Power Coatings*



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2. Operation Description

Automatic

Variable

Attenuator

Control

System

The unit is designed for the attenuation of various defined beam wavelengths.

Various intensities can be achieved by changing the angle of the optics in the path of the beam. A compensation filter is used for beam correction.

The optics are not included in the delivery. The various wavelength filters are available from LASEROPTIK GmbH, 30826 Garbsen, Germany

The optics can be controlled in three various ways:

1. Manual: 3 function buttons and self explanatory display
2. Analogue: The connection of 0-10V DC i.e. from an SPS
3. PC: A serial interface connection is possible using the included Net“-Software.



3. Operation Description



Fig. 1: AVACS main unit

	4. Components

1. AVACS- Main unit
2. Power supply for 110/230V, 50/60Hz
3. Power supply cable
4. Serial interface cable
5. Analogue control connection cable
6. Full version .NET-Software on CD-ROM
7. Retractable tweezers to install optics/filters
8. Transport case



Fig. 3: Transport case



Fig. 4: Accessories

5. Components



6. Technical Information

Optical components:
(not included)

Depending on Beam profile, 27 x 50mm

Available from: LASEROPTIK GmbH, Garbsen,
Germany

Step size:

0,1°

Max. Angle

45°

Max. Rotation speed:

22 ^{ms}/ Degree

Heat sink:

Water cooling (8mm- quick connector) and
Al₂O₃ internal cladding in the beam box.
Water flow and temperature are dependant
upon the beam intensity.

Display:

LCD display

Dimensions:

120mm x 120mm x 310mm

Weight:

5kg

Room tolerances:

Indoor use only, 0 ~ 40°C,
Relative humidity ≤ 75%



4. Technical Information

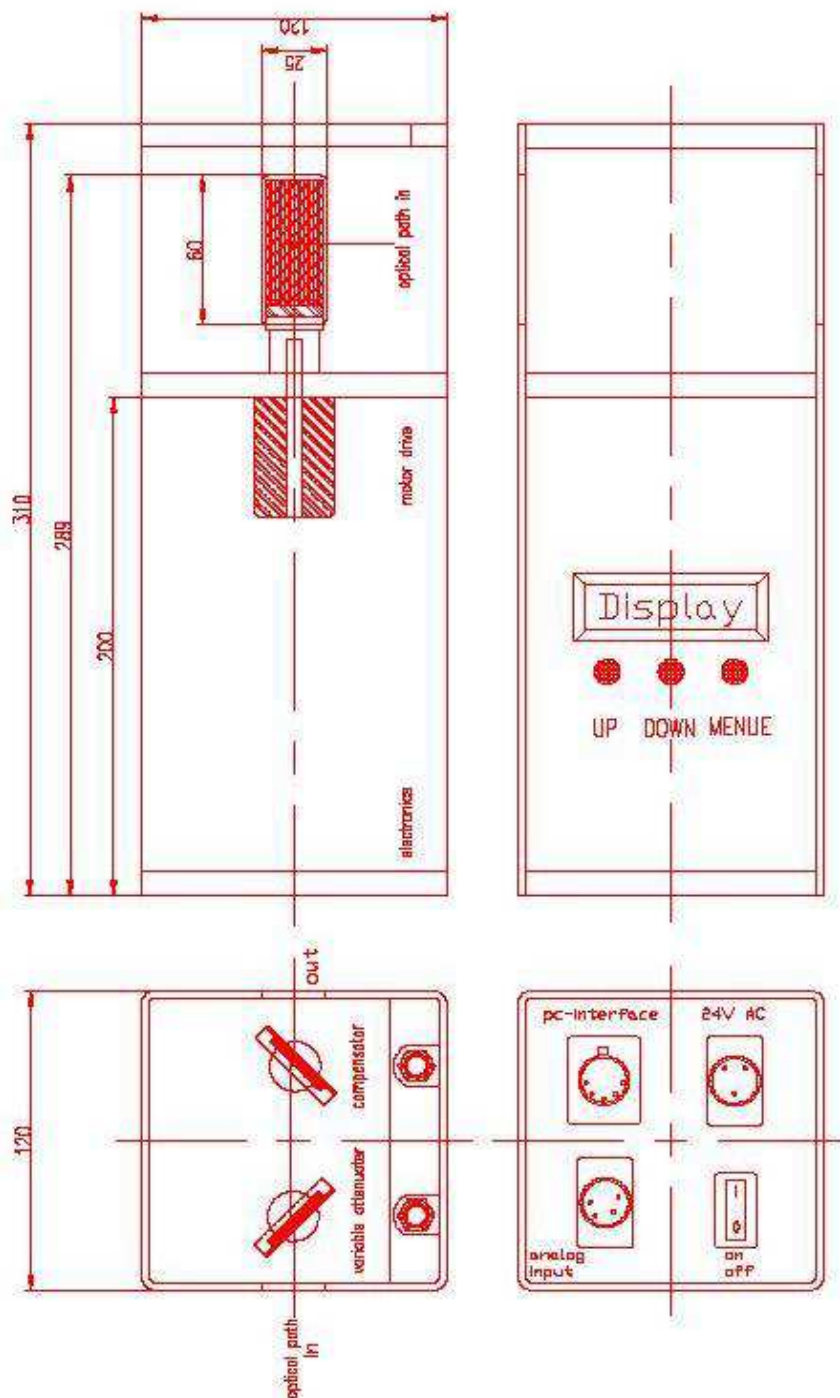


Fig. 2: Dimensions in mm

5. Starting up

The unit operates on the power supply included, which runs on 110/230 Volts, 50/60Hz AC

First connect the 24V AC plug into the AVACS then connect the mains plug.

The connection of the water cooler is done with 8mm quick connects on the back of the unit visible to the user. The water flow and temperature are dependant on the intensity of the beam.

Upon switching on, using the on/off switch, the AVACS unit will automatically start initializing to the 0 position, (minimum beam intensity).

The installation of the optics is described in chapter 5.



Fig. 5: Front side



4. Installation of Optics.

Replacement or changing of the reducing and compensation optics are completed as follows:

1. Remove the three screws securing the base on the underside of the unit.
2. Switch the unit on and wait for the initializing process to finish.
→ The optics will then be positioned at 45°.
3. Using the up-down buttons on the unit, rotate the optic holders to the 0°- position.
→ Holders should be sitting parallel to the sides of the unit.
4. Using the spring tweezers pull back on the spring loaded retainer and insert the filter. The optics should be so mounted that the beam strikes the coated surface. The beam entrance and exit on the housing depends upon the position of the optics.
5. Refit the base.

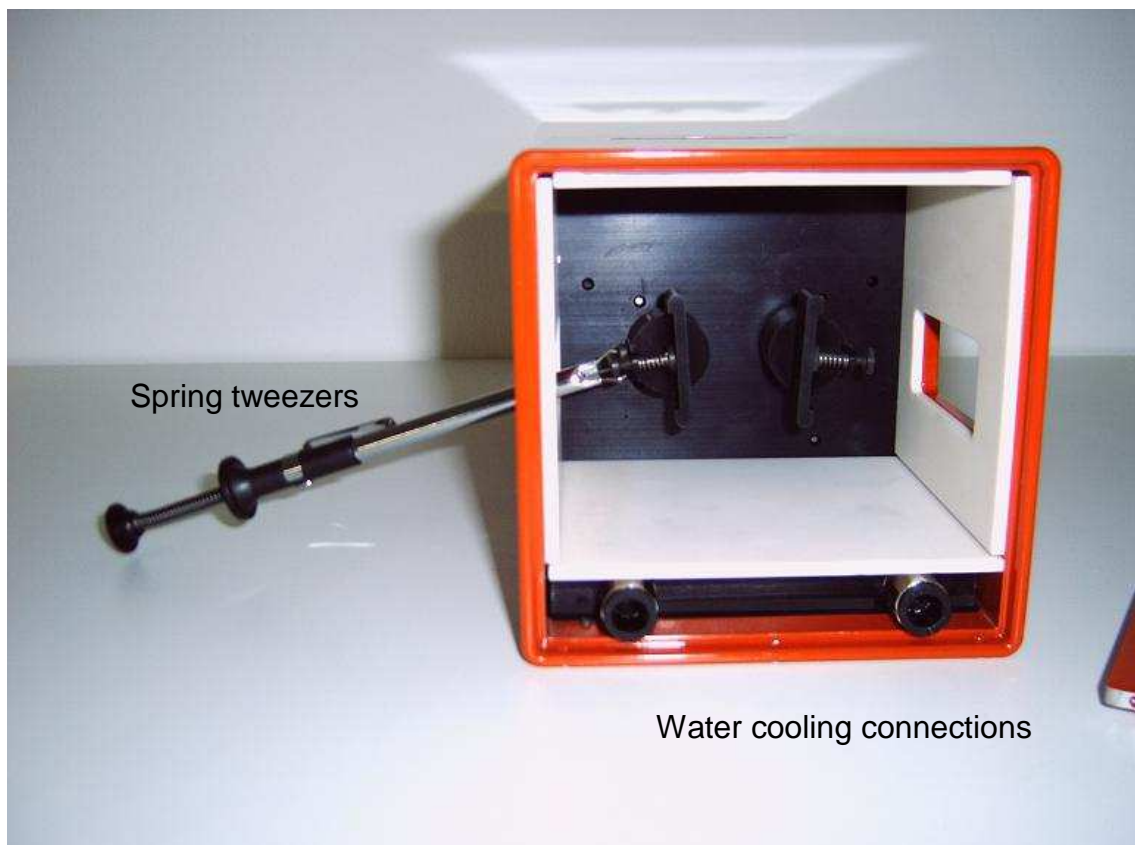


Fig. 6: Backside.

5.	Display for manual control



Fig. 7: Display

6.	Control with PC

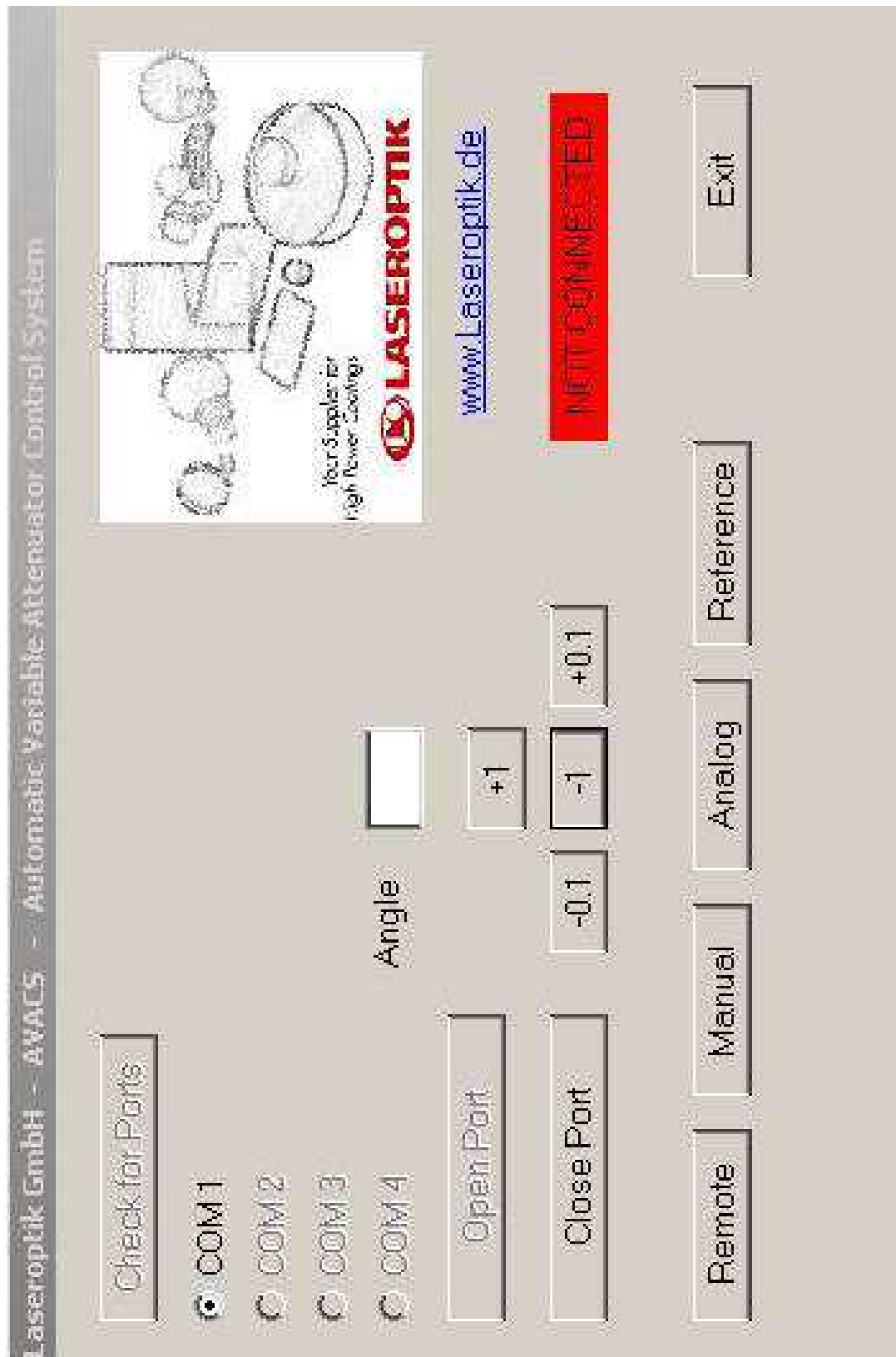


Fig. 8: PC-Software

7.	Repair / Inspection / Failure

The AVACS unit is maintenance free, however the optics and beam box should be regularly cleaned using oil free pressured air.

If the unit does not correctly operate, please check that the optics are correctly seated in the holders.

Check that the unit operates in manual mode using the up / down buttons and that the optics rotate.

When using the analogue or serial interface connections please be aware of the correct connections.

When all else fails, please contact LASEROPTIK GmbH.

The use and handling of this unit should only be done by qualified personnel.

We accept no responsibility and give no guarantee for damage occurring due to the incorrect usage of the AVACS.

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LASEROPTIK GmbH is certified to **DIN EN ISO 9001: 2000**

BG-03/2016