Software Q 3.0

Acquisition, Evaluation and Management of Discharge Data

Software Q 3.0

Isotach

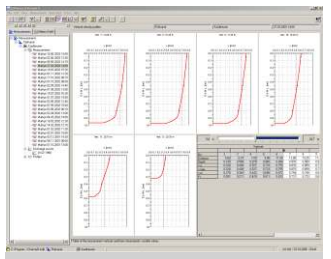Velocity Distribution in the Verticals

level-flow relation

Key Features:

- Evaluation of Flow Measurements according to ISO 748

- Relational database management system
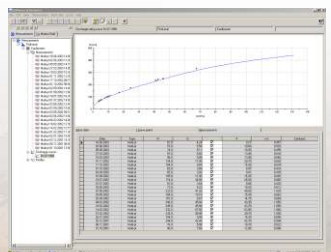
- Online-Registration of measuring values

Installation of flowmeter

Measurement with current meter type SEBA F1

Application with AquaProfiler[TM]

We are certified
ISO 9001:2008
Certificate No. 01150509
Quality is our standard

Velocity-Area Method

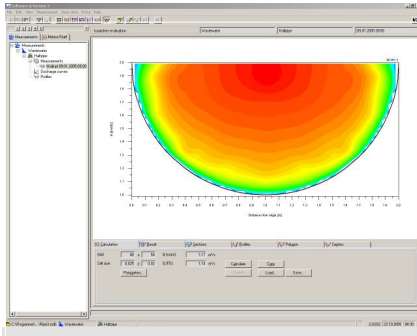## River
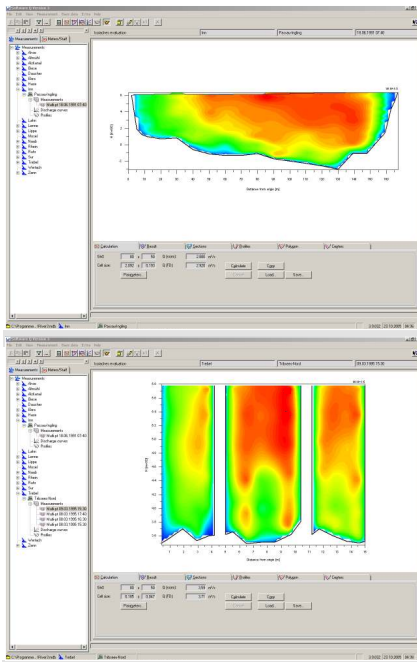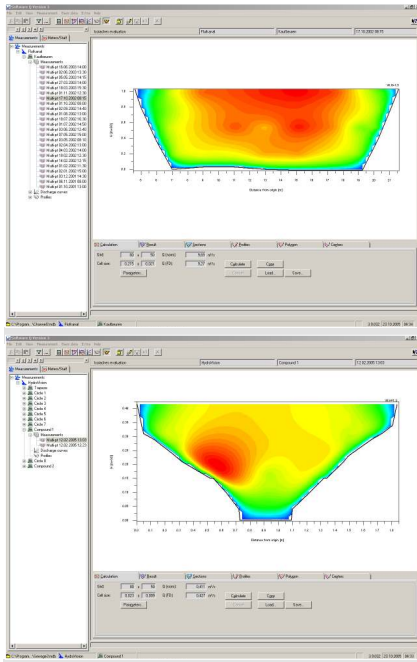
The principle of this method consists of measuring velocity and cross-sectional area. A measuring site is chosen conforming to the specified requirements. The width, depending on its magnitude, is measured either by tape or by some other surveying method and the depth is measured at a number of points across the width, sufficient to determine the shape and area of the cross-section. Velocity observations are made at each vertical preferably at the same time as measurement of depth, especially in case of unstable beds. They are made by anyone of the standard methods using velocity meters. The discharge is computed arithmetically by adding the products of the velocity and corresponding area for a series of observations in a cross-section. Based on the velocity-distribution curves of the verticals, a velocity-distribution diagram for the cross-section is prepared showing lines of equal velocity. Specific regressions in the discharge-rating-curve will be drawn up automatically.

Velocity Distributions in the Verticals

Open Channel
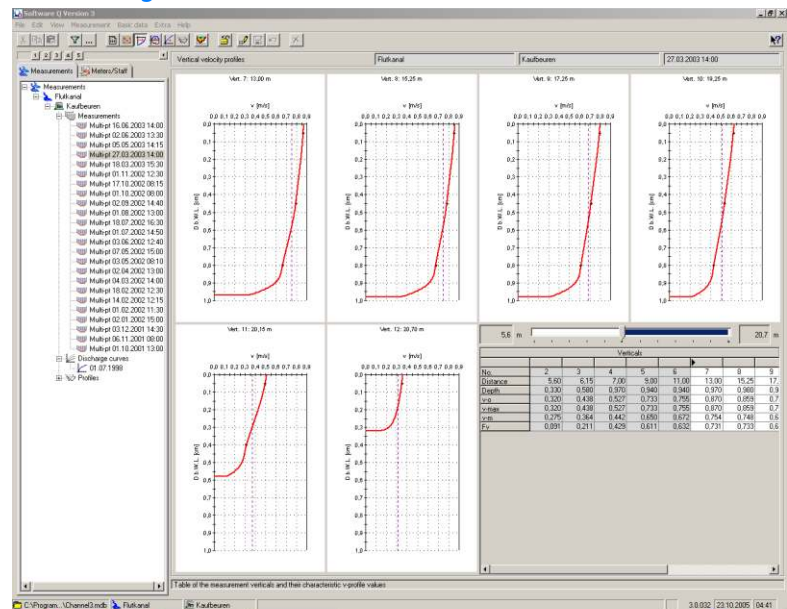
Discharge-Rating-Curve

Sewer Pipe
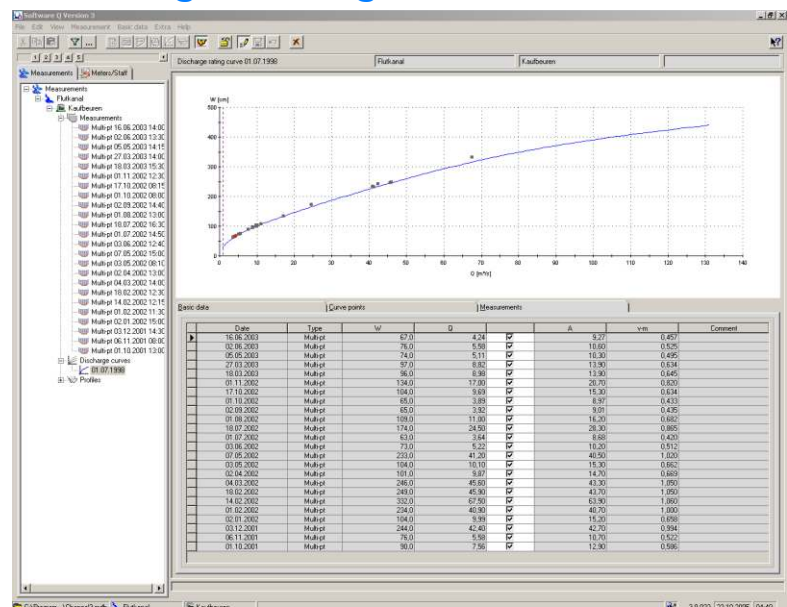
Supported Methods

One Point Method

Velocity observations shall be made on each vertical by exposing the velocity-meter at 0.6 of the depth below the surface. The value observed is taken as the mean velocity in the vertical.

Two-Point Method:

Velocity observations shall be made at each vertical by exposing the velocity-meter at 0.2 and 0.8 of the depth below the surface. The average of the two values is taken as the mean velocity in the vertical.

Multi-Point Method:

Using this method, the values of the velocity are obtained from observations at a number of points on each vertical between the surface of the water and the bed of the channel. The velocity observations at each position are then plotted and the unit width discharge or mean velocity determined by numerical methods (Spline-Approximation).
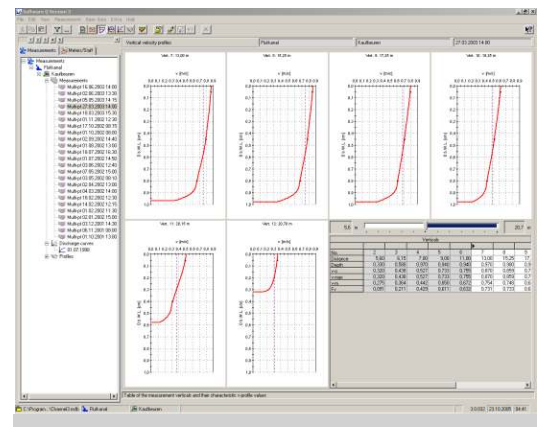
Evaluation

For each measurement a record of the measurement is made. The following information is included:

Measurement Record

Velocity Distribution in the Verticals

Enhanced Evaluation

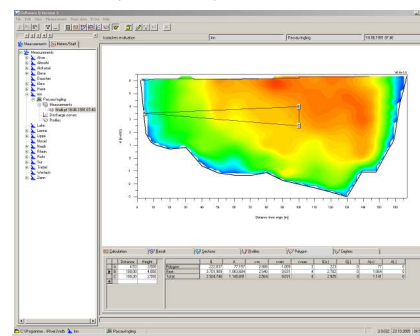With the separately available Profi-Module you can examine even complex flow conditions in much more detail than what the standard version has to offer. The flow distribution in the measuring section is calculated based on the finite-differences-algorithm.
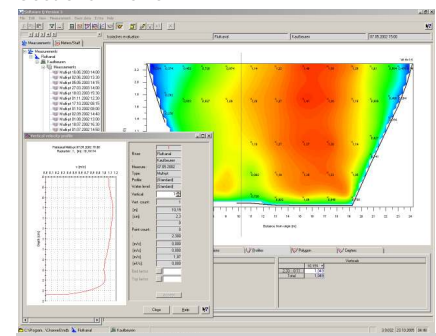
Evaluation of Areas of Interest
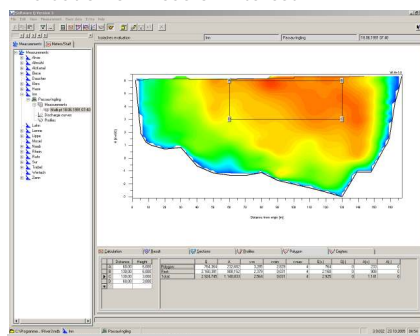
Hydraulic Calibrations
of Sewer Pipes and Open Channel

Virtual Vertical and Horizontal
Sectional Views

Modules, Interfaces and Upgrade-Options

Interface SEBA HDA
for data exchange between SEBA Qce running on your HDA and Software Q 3.0 installed on your PC/Laptop.

Mini Current Meter Type M1

Current Meter Impulse Converter

Module Current Meter
for Online-connection of current meter, direct processing and indication of the current meter impulses;
requires: impulse converter
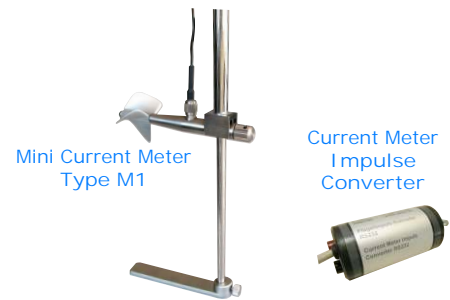
Interface for Delphin
online-connection intelligent stabilizer tailpiece, direct processing and indication of the current meter impulses, the flow direction, depth and ground contact

Interface ADC
direct data transfer of measured values of OTT-ADC

Interface for Vota
direct data transfer of measured values of Vota

Interface AGILA
import of ADCP measurements in AGILA format

Module Export
Export of water depths in Aqua-Coup format, Export of point measurements in NVA-, XYK- and WSP file format

Q ce - mobile version

SEBA Package incl. impulse converter for the HDA

In combination with SEBAQce current meter measurements can be registered and visualized right on your handheld SEBA-HDA. The file-transfer of the data to your PC is done via Software Q 3.0

Our handy HDA combines the function of a signal-counter with the possibility to enter manual notes in one handy, easy and watertight device.

All of your measurements are logged internally in a data base. This makes it possible to continue an aborted measurement at a later time. You can also reload old measurements if necessary.

The measuring points come clearly arranged in form of a data sheet, which makes them very easy to select.

Hydrologica Digital Assistant
SEBA HDA
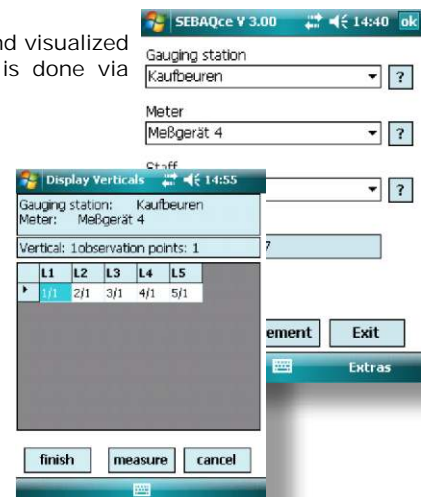
After you have finished your measurement/s, you can easily import the data into Software Q 3.0 and store it in a data base. A professional processing of the taken measurement can be done.

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represented by: