# Our Solution for Your Discharge Measurements: Maximum Flexibility.

## DISCHARGE MEASUREMENT

BIBER is a discharge measurement application that you can use in the field as well as in the office. BIBER offers all functions for direct collection of discharge measurement data by means of a field computer and for manual collection and calculation of the flow measurement data in the office. In the field, BIBER works with all conventional measuring devices. For example, with measurements provided by current meters, impulses are transmitted wirelessly to the field computer.

## Device management

The BIBER device manager allows for clear and concise management of sensors, current meters and their calibration equations, as well as counters. You can configure the current meter with a variety of propellers, current meter bodies and centre pieces. Simply enter the calibration equations and leave the continuity control to BIBER. Besides NAUTILUS (by OTT) and FLOMATE (by Marsh McBirney) sensors, BIBER can configure and manage sensors from any manufacturer.

## Measuring procedures and data collection

Define your cross section. BIBER provides any required amount of bank points, verticals and depth measurement. Even complex measurement cross sections are displayed effortlessly. You determine a main measuring procedure for the entire cross section, in order to facilitate rapid data collection. BIBER also allows for changes in the set measuring procedure for selected verticals. The following can be selected:

- One-point measurement
- Two-point measurement
- Two-point method according to Kreps
- Three-point measurement
- Five-point measurement
- Six-point measurement
- Multi-point measurement
- Integration measurements

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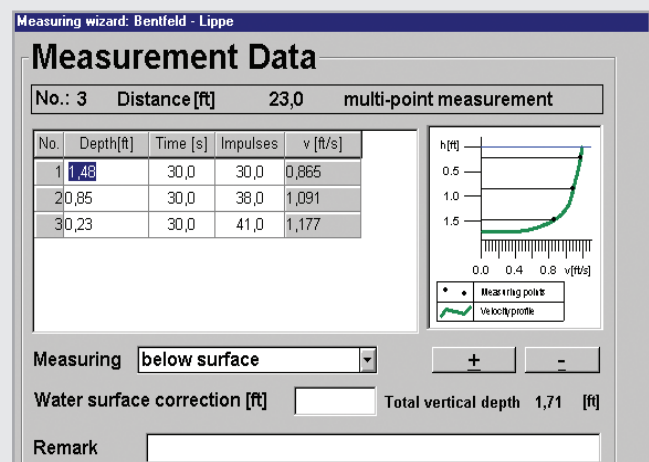
BIBER can automatically record impulses if you use a DELPHIN, FLO-MATE or NAUTILUS sensor. This also applies for the combination of a current meter and an impulse converter. BIBER supports you with a variety of smart functions. The measurement wizard is easy to use and offers constructive depth suggestions during measurement. The velocity distribution is displayed on the vertical for plausibility control. Every recorded measurement can be edited.

## Evaluation procedure

Three methods have prevailed for the definition of the gaugings for a velocity measurement:

- Spline Interpolation according to the "Pegelvorschift" (German Manual for Water Level Gauging and Discharge Measurements, see Appendix D)
- Mean section procedure (ISO748, Appendix E)
- Mid section procedure (ISO748, Appendix E)

Discharges from the partial cross-section are displayed for all evaluation procedures, and individual verticals may be excluded from the evaluation.

BIBER offers the following graphical evaluations:

- Measuring cross section with water level
- Measuring cross section with river bottom
- Measuring cross section with surface velocity
- Measuring cross section with velocity area ($f_v$-line)
- Measuring cross section with $h^{3/2}$ line and $h^{5/3}$ line
- Velocity distributions of individual verticals
- Isotach diagram
- Wet and dry profiles
- Comparison of current measurement with archived measurements and rating curves
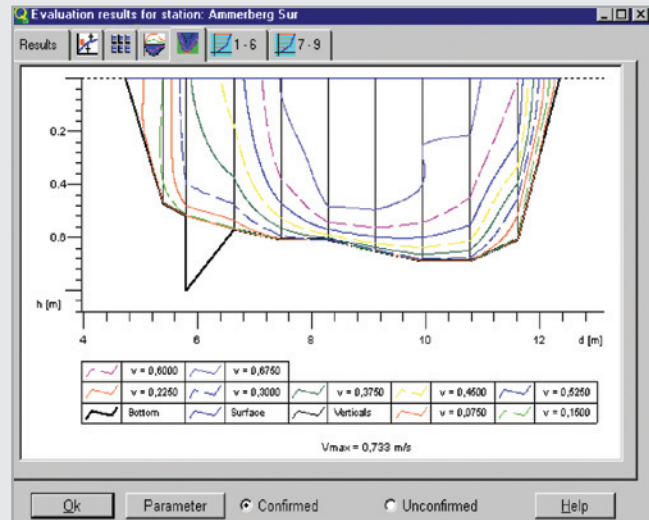


## Application variants

BIBER standalone (field / office)
BIBER + WISKI + SKED
BIBER + SKED

Progress and success in water management:
**With BIBER and the competence of pioneers.**

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