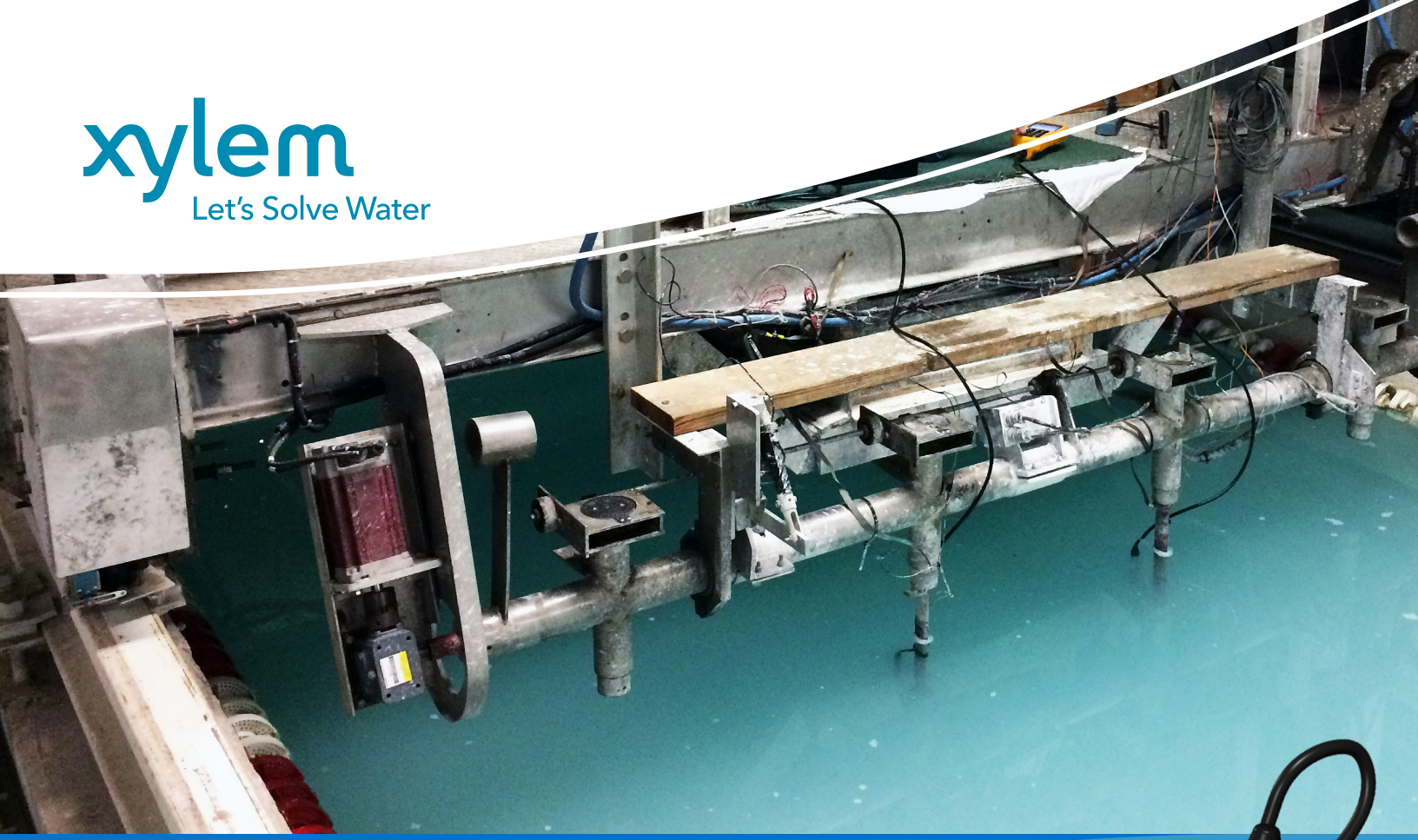
xylem
Let's Solve Water



FlowTracker2 Lab ADV®

ACOUSTIC DOPPLER VELOCIMETER SOFTWARE SOLUTION

SonTek
a xylem brand

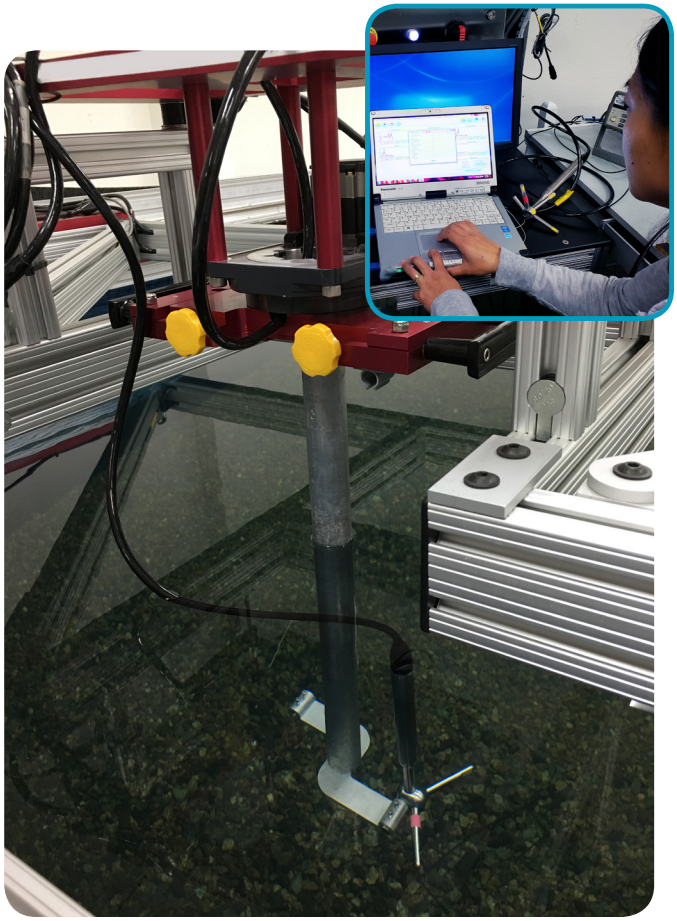
Flagship ADV® Technology

For decades, the Acoustic Doppler Velocimeter (ADV®) has been the preferred instrument for precisely-defined sampling of water velocity across a wide range of environments. The FlowTracker2 Lab ADV utilizes SonTek's continuing innovation in ADV platforms to offer a laboratory version of the world's best-selling ADV, the FlowTracker2. For the first time, the ADV's acoustic probe and processing electronics are housed in one small, lightweight, easily-maneuverable unit, and the acoustic head has an optional, integrated pressure (depth) sensor.

FT2 LAB ADV IS RECOMMENDED FOR USE IN:

- Civil engineering, environmental, and hydraulic projects
- Aquaculture and aquarium operations
- Surface and bottom boundary studies
- Tanks, flumes, and physical models
- Very shallow water environments
- Turbulence
- Settling rates
- Fish screens

Depth data are even correctable for dynamic pressure (Bernoulli) and altitude effects using SonTek's patent-pending method. Setup of the probe and PC software is simple and mistake-proof. Just connect the cables between the probe and your laboratory PC or laptop, check a few settings, and press the "Start Logging" button. Data are output directly to a *.CSV file that is immediately ready for use in the project, model, or database as required.



The SonTek ADV is a longtime standard for accurate, high-precision water velocity measurements under a wide variety of flow conditions and research settings.

Output Variables Available

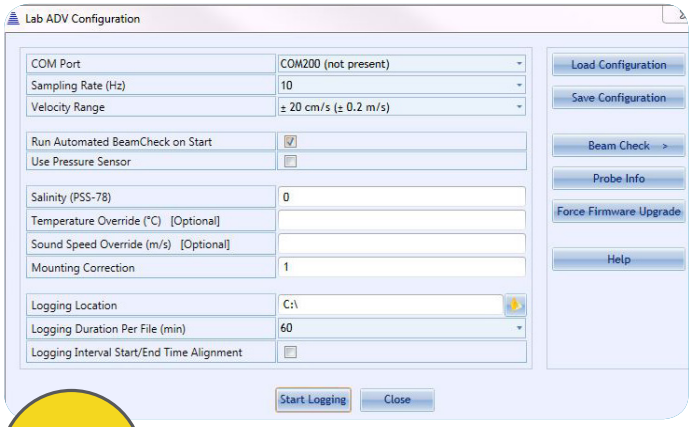
- Velocity X, Y, and Z[1]
- Per beam (2 or 3 parameters, depending on probe configuration)
  - Correlation score
  - Signal-to-Noise Ratio (SNR)
  - Signal amplitude
  - Noise level
- Pressure sensor calibration interval
- Temperature
- Sound speed
- Raw pressure[2]
- Corrected pressure[2]
- Depth[2]
- Power voltage
- Accelerometer X, Y, and Z

[1]Z (vertical) velocity available with optional 2D/3D probe configuration
[2]Pressure and depth available with optional probe configuration

Let's Get Started!

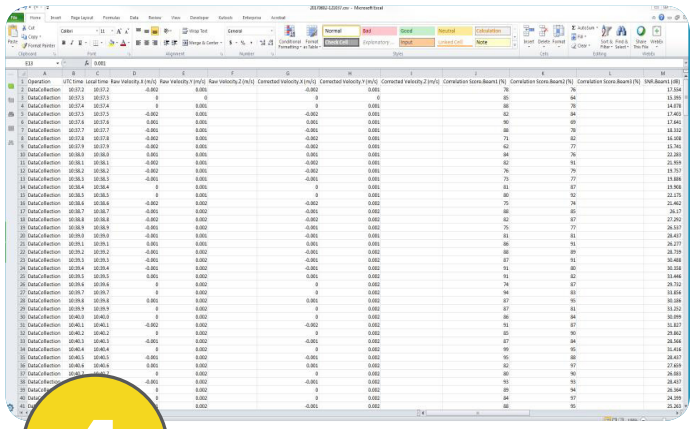
In three simple steps, the FlowTracker2 Lab ADV delivers robust, high-quality data right out of the box. The software interface writes data directly to a *.CSV file which can then be further processed, analyzed, or imported into other programs according to your project needs.

1 Connect the cables between instrument, power supply, and PC.



2 Check a few settings using the easy graphical interface.

3 Click the 'Start Logging' button. See graphs in real-time.



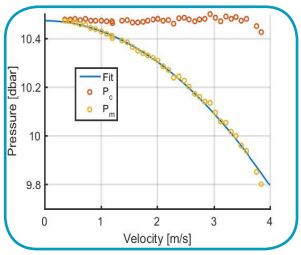
4 Your *.CSV data file is created and ready to use!

Optional Handheld System

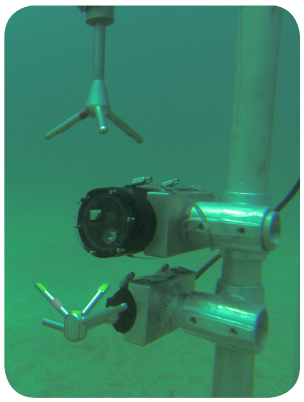
Carry the accuracy of ADV technology in your hand to different locations within the lab, or even outside. The optional handheld system enables control of the ADV without a PC, making it a more versatile tool across more research disciplines and applications.

FlowTracker2 LAB ADV ACCESSORIES AND SPECIFICATIONS

FlowTracker2 with optional integrated pressure (depth) sensor.



FlowTracker2 can correct depth data for the effect of moving water (Bernoulli Effect).

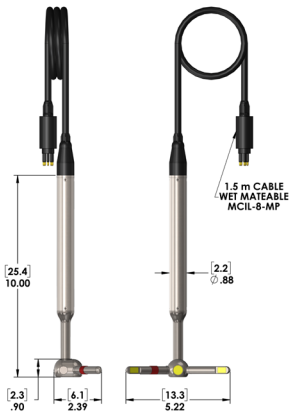


Multi-method study with FT2 Lab ADV, Argonaut-ADV and laser instrumentation.

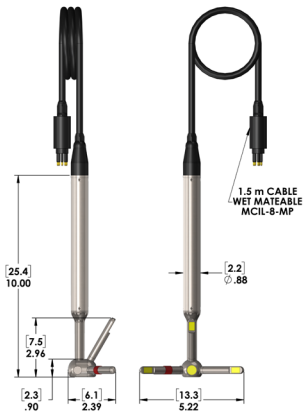
Advice and technical support are always an email or call away! Contact us at support@sontek.com.

Part I: System	
Velocity Range	±0.001 to 4.0 m/s (0.003 to 13 ft/s)
Velocity Resolution	0.0001 m/s (0.0003 ft/s)
Velocity Accuracy	±1% of measured velocity + 0.25 cm/s
Acoustic Frequency	10.0 MHz
Sampling Volume Location	10 cm (3.93 in) from the center transducer
Sampling Volume Size	0.25cc
Minimum Depth	0.02 m (0.79 in)
Depth Measurement Range	0 to 10m (0 to 32.81ft)
Depth Measurement Resolution	0.001m (0.003ft)
Depth Sensor Accuracy	+/- 0.1% of FS (temperature compensated over full operating range)
	+/- 0.05% Static (steady-state at 25°C)
	Additionally compensated for real-time water velocity, temperature, salinity, and altitude.
Temperature Sensor	Resolution: 0.01° C, Accuracy: 0.1° C
Tilt Sensor	Accuracy: 1.0°
Communication Protocol	RS-232
Operating/Storage Temperature	-20° C to 50° C (-4° F to 122° F)
Physical Specifications	
-Probe Head Dimensions	(L)13.3 cm (5.22 in); (W) 6.1 cm (2.39 in); (H) 2.3 cm (0.90 in)
-Standard Cable Length	1.5 m (4.92 ft)
-Weight in Air	0.90 kg (1.98 lbs)
-Weight in Water	0.30 kg (0.66 lbs)
Sampling Rate	1, 2, 5, or 10Hz
Optional Extension Cables	1.5, 3.5, or 8.5 m
Part II: Handheld	
Power	
-Power Supply	8 - 12 VDC
-Power Consumption	1 W (Average)
Physical Specifications	
-Waterproof Rating	IP-68 (30 m, 42 PSI)

2D Probe



2D/3D Probe



Handheld Display

[cm]/in

xylem
Let's Solve Water

Xylem Analytics Asia Pacific
analytics.asia-pacific@xyleminc.com
www.xylem-analytics.asia

Xylem Analytics Australia
salesAus@xyleminc.com
www.xylem-analytics.com.au

Xylem Analytics South Asia
analytics.india@xyleminc.com
www.xylem-analytics.in

Xylem Analytics Japan
ysijapan.support@xyleminc.com
www.xylem-analytics.jp

Xylem Analytics Korea
junjae.won@xyleminc.com
www.xylemanalytics.kr

Xylem Analytics Vietnam
analytics.vietnam@xyleminc.com
www.xylem-analytics.vn