.Ocean
nautical innovations

iCone
intelligent sounding pole
ICN-01

Topbox with display, buttons and battery supply (10 h). Support for standard and high precision GPS

Dredging preparation, waterway and river soil characterization and maintenance planning

Reduced weight by the use of carbon and light weight materials

High accurate soil profiling in an easy-to-use instrument

The use of a flutter enables accurate measurement of the water level

Real time data visualization via Bluetooth on a ruggedized tablet (included)

Measurement of cone penetration resistance

Manual sediment profiler for analyzing underwater soil layers

The iCone is an intelligent sounding pole. With this manual mud or sediment profiler it is possible to analyze underwater soil layers in small waterways and rivers by manually pushing the instrument in the soil.

This results in a full profile of the soft underwater layer from fluid mud to the hard bottom. The instrument can measure cone penetration resistance in fluid mud and consolidated mud.
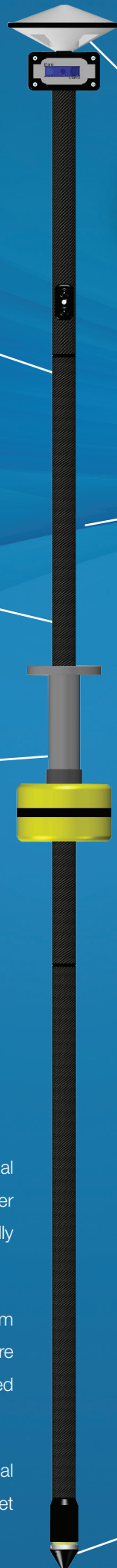
The iCone is equipped with a Bluetooth connection for real time visualization of measured data on a ruggedized tablet (included).

Connection with standard GPS devices is supported or optionally an embedded highly accurate GPS can be installed.

With the collected data it is possible to accurately plan and estimate dredging and maintenance works of small rivers, waterways and reservoirs.

Developed to capture high quality rheological profiles of fluid and consolidated mud layers

Applications

Dredging preparation

Waterway and river soil characterization

Small river and waterway maintenance planning

Sediment reservoir management

Benefits

High accuracy soil profiling

Easy-to-use instrument

High resolution data

Immediate results

Online data acquisition

Cone penetration vs Depth

Features

Accurate resistance over depth profile

High resolution due to fast sampling rate

Strong and reliable system

Extendable with 1 m pieces (maximum length of 3.5 m)

GPS module included, optional precision GPS available

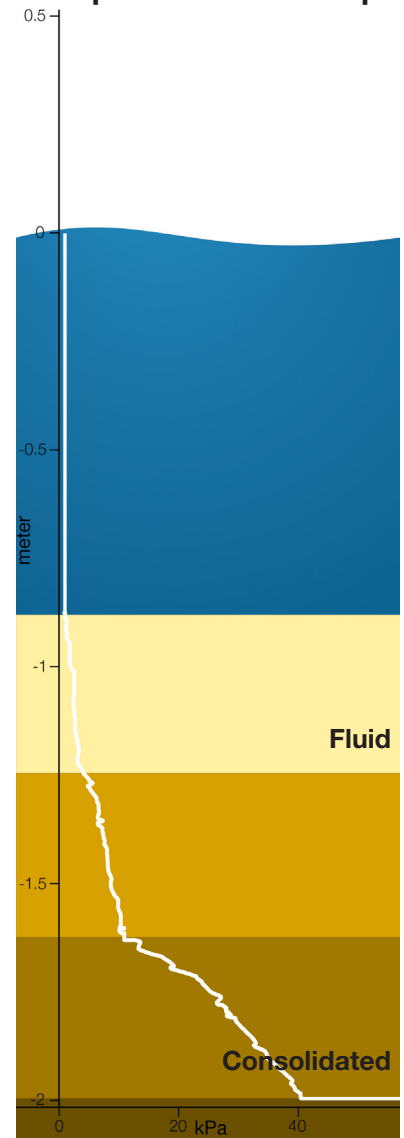Connection with other standard GPS devices over NMEA

Software

Ruggedized tablet

Bluetooth connection

Real time data visualization

User-friendly interface

Easy export of data

Soil and mud detection

Minimum detectable thickness	Soil thickness	5	cm
	Mud thickness	15	cm
Maximum detectable mud layer		300	cm
Vertical resolution detection		2	cm
Pressure level top mud (adjustable)		654.7	Pa
		6.67	g/cm³
		66.7	kg/m²

Electrical

Minimum autonomy	10	h
Supply		12 V adapter

Physical

Material			Carbon and Aluminium
Size basic kit (modular)	Total length basic (conus + extensions)	5	m
	Basic Module	1,5	m
	Active extension module (max. 2)	1	m
	Passive extension module	1	m
	Weight	2,8 - 5,2	kg
Extra extensions	Active extension module (max. 4)	0,6	kg
	Passive extension module (max. 2)	0,4	kg

Tablet with software app

Tablet type	Samsung Galaxy Tab Active SM-T365 (rugged)
Operating system	Android
RAM memory	1.5 GB
Connection	Bluetooth v4.0
Screen resolution	1024 x 800

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w w w . d o t o c e a n . e u

dotOcean NV

Pathoekeweg 9B02

8000 Brugge

Belgium

+32 (0)50 68 30 54

sales@dotocean.eu

www.dotocean.eu