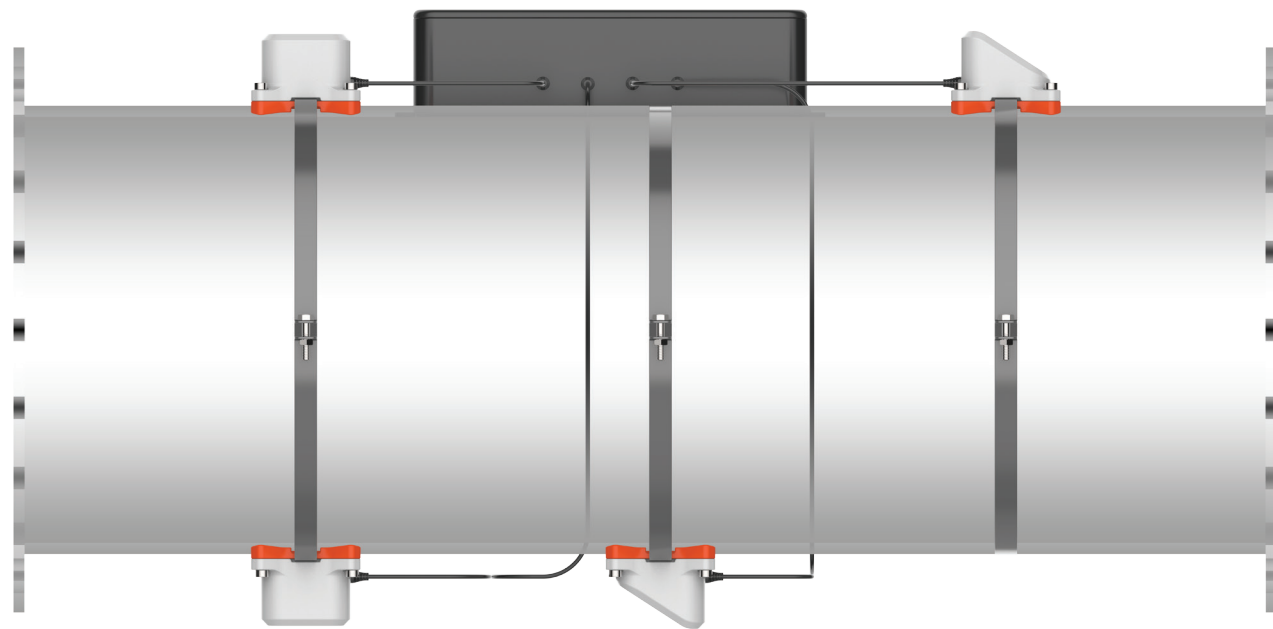


Nonius SM

Non-nuclear density and velocity meter in one device

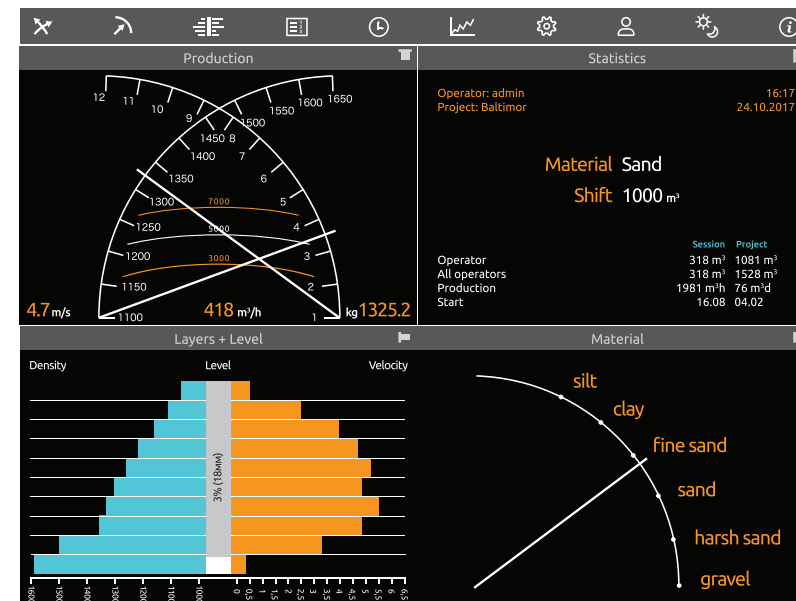


This system not only allows making on-the-fly recordings of performed work but also can show you the amount of valuable material separately. As the result, you can decrease expenses for its recovery and for technical support in general)

The automatic reporting module lets the manager obtain data on performed works without involving personnel action, allows real-time remote supervision and assessment of workflow and progress comparison of several operators.

Possible applications:

- Monitoring of dredging operations
- Monitoring of the amount of mined material
- Monitoring of the fuel's characteristics while bunkering



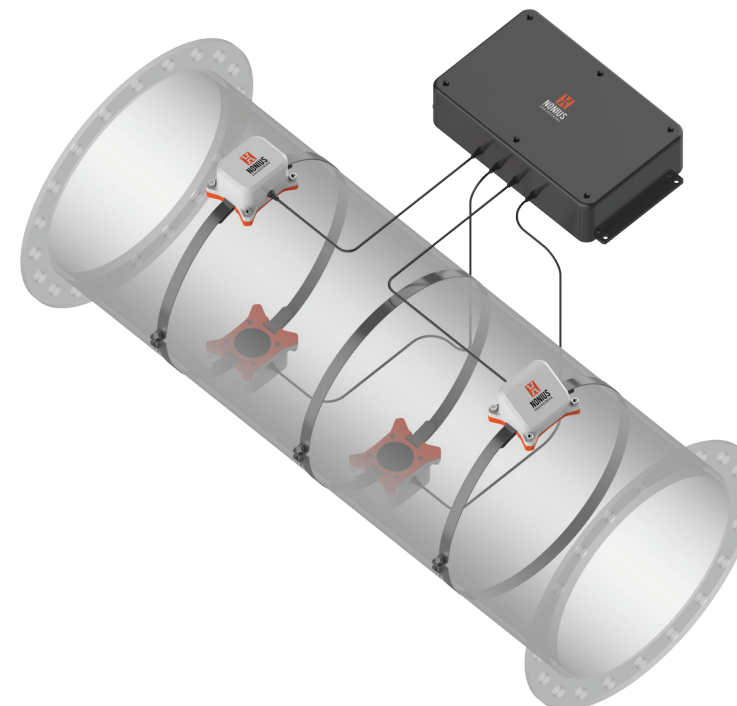
The primary function of the Nonius SM is on-the-fly logging of the productive output of the dredge pump.

THIS SYSTEM ALLOWS

- To measure velocity of the material as to a layer (to the accuracy of 2 cm) and therefor accurately calculate the production of slurry
- To analyze density of liquid in the pipe
- To analyze density of slurry in the pipe – layer by layer
- To have real-time dredge output information (based on the amount of dry solid)
- To have current reports on processed amounts of slurry and dry solids with data collected separately for each operator
- To recognize the material in the pipe (sand, clay, gravel)

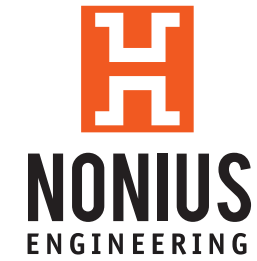
MAIN ADVANTAGES

- No radiation (no expenses for isotope certification)
- Not cut-in solution (fewer expenses for wear-and-tear reasons. No need to upgrade the ship's documentations)
- Measurement of velocity of the material layer by layer (more detailed information)
- Extremely precise
- Can be integrated with the Nonius™ CSD, the monitoring complex for suction dredgers (fewer expenses for installation)



Type Density and velocity meter

Measurement range of velocity	±10 m/s
Measurement range of density	1.0-1.7x1000 kg/m³
Quantity of detectors	4
Activity indicator	Graphic display
Operating voltage	9-36 V
Power consumption	<4 W
Interface type	Ethernet FE
Communication protocol	Modbus
Node ID	1...255 (programmable)
Ambient temperature	-30...+80 C
Storage temperature	-40...+85 C
Connection type	8P8C RJ45
Body material	Aluminium
Protection level	IP65
Total weight	850 gr

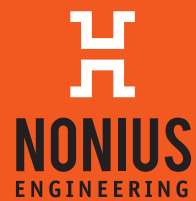


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ON WATER AND UNDERWATER!

DREDGING AND TECHNICAL
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NON-NUCLEAR DENSITY AND VELOCITY METER

IN ONE DEVICE



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