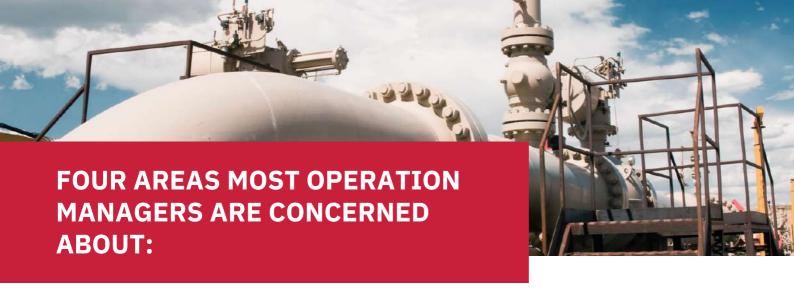




Sand Management Solutions

by Award-Winning Finnish Innovator Rocsole





### Sand accumulation in processes can cause...



# Reduced **Throughput**

Undetected solid buildup in pipelines and process vessels reduces the operating capacity.



### **Expensive Downtimes**

Blockages inside pipelines and process vessels may lead to expensive unplanned shutdowns.



# Reduced Production **Performance**

Solids movement can cause damage to infrastructure such as pipeline, pumps, valves, etc.; increase the potentials for corrosion.



## Unnecessary Safety Risks

Corrosion & erosion of pipelines may lead to leakage of process fluids.

# **Unplanned shutdowns** and maintenance can be made a distant memory.

The current solutions lack reliable insights and data; this prevents the operators from relying on the information and thus taking timely actions.

Operation teams need relevant data to improve performance and take corrective measures.

You deserve a better tool that keeps you wellinformed 24/7.

# Remove your processing uncertainty.

Shape the future of your operation with a reliable and robust patented award-winning solution.



## Get your processing to the next level with SeeBeyond

Our electrical tomography-based SeeBeyond provides a real-time permittivity technology /conductivity profile, generating an overall picture of what is happening inside for typically data starved operating environments.

The interpretation is based on actual real-time data. Now you can SeeBeyond the walls of vessels or pipelines and identify when changes happen.

Our Electrical Tomography technology is robust and reliable as it can operate despite contamination (fouling). The technology enables the measurements of interface levels for solids buildup and liquids -24/7 updated for your information and monitoring.

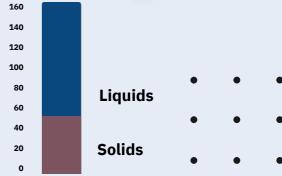


**30Ctole** 



**SEE HOW IT WORKS:** https://rocsole.co/sdworks

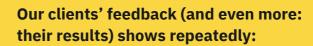






# Your Operational Success Unleashed

Do not accept sand contamination in your operations any longer.



Existing customers say
Rocsole SoliDetect 1.0 is
enabling a reliable solids
monitoring system for
improved process control.



# **Informed Decisions through Data Integration**

Our data intelligence software is designed to integrate with your systems. Rocsole SoliDetect 1.0 collects "real-time" process data and is available in multiple formats upon request using our interactive reporting software.



# **Effectively Avoid Unnecessary Risks and Cost**

Real-time data of solids buildup from within the process vessels prevents unexpected shutdowns or asset deterioration. Relevant data improves overall performance, increases throughput and reduces cost. No more environmental hazards, and it helps you reduce carbon emissions.



# **Use Reliable Insights for Improved Efficiency**

The Rocsole SolidDetect 1.0 provides rapid and reliable data, allowing you to understand and manage solids buildup within your process. Allow you to be proactive rather than reactive.



# Maximize Production & Revenues

The detailed, real-time information provided will not only help you with avoiding unnecessary damage but also can help you optimise production. Where this approach has been implemented, our clients were able to make changes to individual wells, increasing oil production and identifying those areas where sand production is not an issue.

# **Tech Specs**



### **Typical Delivery**

#### **User Interface**

**DELIVERY** 

Incoterms 2020, EXW Kuopio

**SOFTWARE** 

Rocsole Webroc 1.0

### **Performance**

**TECHNOLOGY** 

**Electrical Tomography** 

**MINIMUM NOZZLE SIZE** 

60 mm (2.3")

**TYPICAL MEASUREMENT RANGE** 

360-1440 mm (14-56.7")

**DESIGN PRESSURE RANGE** 

Up to 170 bar (2465 PSI)

**TYPICAL TOTAL LENGTH** 

400-5000 mm (16-200")

DESIGN TEMPERATURE RANGE -40 to +120 °C (-40 to 248 °F)

**TYPICAL ACCURACY (ACHIEVED)** 22 mm

### **Electrical Characteristics**

**SUPPLY VOLTAGE** 

24Vdc

**ELECTRONICS** 

24Vdc @ 3A

COMPUTER

24Vdc @ 3A

OUTPUT

Modbus/TCP

Modbus/RTU

• Analog 4-20mA

OPC UA

### **Mechanical Characteristics**

	WEIGHT	MATERIAL	ZONE
PROBE	Varies	Varies	Zone 0
ELECTRONICS CABINET	40 - 100 kg	Varies	Zone 1
COMPUTING UNIT	Varies	Varies	Safe Zone / Zone 2

### **Environmental**

APPROVALS	ATEX, IECEx, CSA	OPERATING TEMPERATURE SENSOR	-40 +120 °C
INSTALLATION	With online factory support	OPERATING TEMPERATURE ELECTRONICS	-40 +50 °C
COMPLIANCE	EN		(Al Enclosure)
		OPERATING TEMPERATURE COMPUTING UNIT	-40 +50 °C

### **Additional Information**

**SPARES** 

Part of Subscription agreement

PRODUCT CODE

PROB-SA-16 .. 64

#### Also available:

**Tailored Packages** & Support In most cases, first-time implementors prefer to start with our standard package, which includes equipment supply, installation/ commissioning and data reporting/interpretation. We are well aware that each operation is different, so please know you can always add:

Custom consulting and implementation assistance

2.

Tailored Rocsole SolidDetect 1.0 elements to fit the specs of your operation

Training, support and maintenance in the operation of the Rocsole SolidDetect 1.0



Brought to you by Rocsole, your partner for next-level operational excellence in the Oil & Gas industry.

Our trusted investors supporting our technology:





**Check out our patents here:** 



## Proudly acknowledged by:











We are happy to help configure the solution setup that is perfect for your operation.

#### Let's talk:



James Walls

james.walls@rocsole.com

in linkedin.com/in/james-walls1962/





Pekka Kaunisto
pekka.kaunisto@rocsole.com
in linkedin.com/in/pekkakaunisto/

