LIQUIDS LEVEL MONITORING 2022+

liquiDetect 2.0

Multi-Layer Liquid Processes Insights

by Award-Winning Finnish Deeptech Innovator Rocsole

rocsole
SEE BEYOND.

rocsole.com

FOUR AREAS MOST OPERATION MANAGERS ARE CONCERNED ABOUT:

Unreliable processing can cause:

Lower Product Quality

- Unable to maintain export oil specifications.
- Lack of control of oil-in-water, environmental impact and significant financial loss.

Prevention is possible through monitoring within the vessels.

Rising Chemical Expenditure

The uncertainty of what is happening inside vessels can cause redundant or additional chemical injection.

Reduced Production Performance

- Shut-in wells.
- Reduced operating capacity/ throughput.
- Lack of clarity on the performance of your Enhanced Oil Recovery techniques.

Understanding the separation process can optimise and increase production.

Unnecessary Maintenance Costs

Excess export water causes corrosion in equipment, pipelines and refineries. This can lead to extensive repair or maintenance, and financial penalties. Lack of data and insights cause unplanned shutdowns and run to failures.

Unplanned shutdowns, reduced uptime and bottlenecks should not be accepted - enhance your insights with our help.

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.

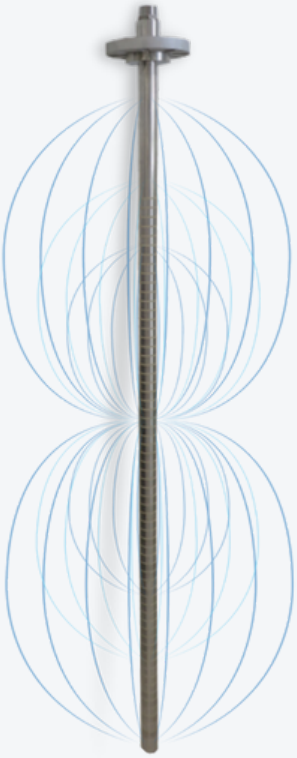
You deserve a better tool that keeps you well-informed 24/7.

Don’t accept the status-quo. Get truly reliable insights.

Data starvation is history. Take the next step with patented deeptech solutions for better product quality and actions for decarbonization.

liquiDetect 2.0

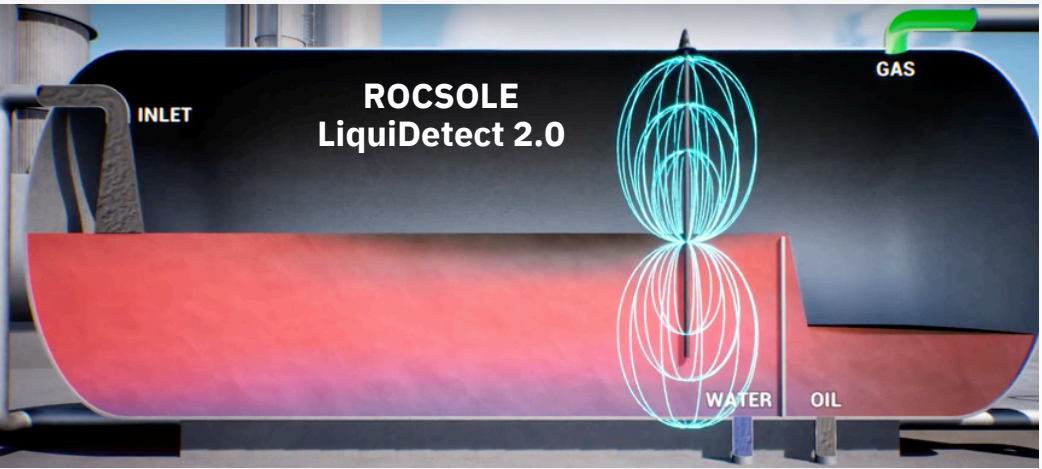
Get to the next level with SeeBeyond

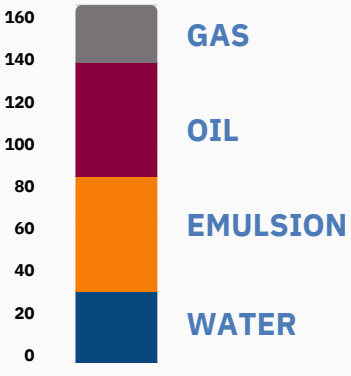


Electrical Tomography provides a real-time permittivity/conductivity profile which generates an overall picture of the actual process levels. With the SeeBeyond you can reliably identify when the changes happen. The interpretation is based on unique actual real-time data.

Our Electrical Tomography technology is proven robust working even with sensor surfaces being contaminated (fouling). The technology enables the measurements of interface levels for Water, Emulsion, Oil, Gas and even Foam - 24/7 updated for your information and monitoring, with more than 1,000 times more data points per day than other incumbent solutions.

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





Your Operational Success Unleashed

Do not accept lack of data in your operations any longer.

Our clients' feedback (and even more: their results) shows repeatedly:

Existing customers say Rocsole LiquiDetect 2.0 provides detailed insights of the oil-water separation and dispersion band height. Resulting in significant operational improvements.

Clever Thought through Data Integration

Our data intelligence software is designed to integrate with your systems. Rocsole LiquiDetect 2.0 collects "real-time" process data and is available in multiple formats upon request using our interactive reporting software.

Use Reliable Insights for Improved Decision-Making

The Rocsole LiquiDetect 2.0 system provides you with rapid and reliable data that allows you to understand and manage your process's water, emulsion, oil and gas interfaces. Now you can be proactive rather than reactive.

Effectively Avoid Unnecessary Risks and Cost

Understanding what is happening inside your vessels can prevent the export of excess water, reduce corrosion, and avoid possible environmental hazards due to high oil-in-water.

Maximize Production & Revenues

Maximise your process capacity by improving the control of separation inside vessels. Improve throughput and product quality. Reduce the frequency of unplanned shutdowns and plant trips. Enable proactive decision makings and planning, ultimately delivering higher overall production performance.

Tech Specs

Typical Delivery

DELIVERY	Incoterms 2020, EXW Kuopio

User Interface

SOFTWARE	Rocsole Webroc 1.0

Performance

TECHNOLOGY	Electrical Tomography	**MINIMUM NOZZLE SIZE**	60 mm (2.3”)
TYPICAL MEASUREMENT RANGE	720-2880 mm (28-113.4”)	**DESIGN PRESSURE RANGE**	Up to 170 bar (2465 PSI)
TYPICAL TOTAL LENGTH	400-5000 mm (17-200”)	**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 (Al Enclosure)
COMPLIANCE	EN	**OPERATING TEMPERATURE COMPUTING UNIT**	-40 .. +50 °C

Additional Information

SPARES	Part of Subscription agreement	**PRODUCT CODE**	PROB-ON/OF-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:

1. Custom consulting and implementation assistance

2. Tailored Rocsole LiquiDetect 2.0 elements to fit the specs of your operation

3. Training, support and maintenance in the operation of the Rocsole LiquiDetect 2.0

SeeBeyond

LiquiDetect 2.0

DON'T LET THE VESSEL WALLS RESTRICT YOUR PERFORMANCE

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

Our trusted investors supporting our technology:

Shell

REPSOL

Check out our patents here:

Proudly acknowledged by:

Spotlight on new TECHNOLOGY

ONE OF THE GROWTH COMPANIES OF 2021! Kauppalehti GROWTH COMPANY 2021 Rocsole

WORLD ECONOMIC FORUM

2020 GLOBAL ENERGY AWARDS WINNER

S&P Global Platts Global Energy Awards

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

Let's talk:

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