

# PETROFIBRE INTERNATIONAL FZC

## COMPANY PROFILE

### ABOUT US

The Petrofibre Company Group commenced its operations in 2008. The Group specializes in the design, development, production and implementation of Fibre Optic monitoring technologies, designed for application towards several industries, predominantly: Oil & Gas, Transportation, Energy and Infrastructure.

The innovative and progressive possibilities our system offered ensured initial market success and added several prominent industry players to our client portfolio. The wide range of application of our system were also demonstrated; we were presented with opportunities to work with oil & gas pipelines, oil & gas wells (conventional, horizontal and injection), railways and airports. To this date, Petrofibre has equipped over 6,500km of oil and gas pipelines, over 240 oil & gas wells, 2 airports and over 140km of railway.

At present time, Petrofibre International FZC is actively pursuing opportunities within the GCC region. We have completed successful field testing of our technology in Saudi Arabia and continue to evolve our presence through marketing and strong relationships with key industry contractors, integrators and consultants.

### OUR VISION

We view the most effective solutions to be the ones custom built to their purpose. Therefore, our vision is to not simply comply with our Client's requirements, but to provide them with solutions tailored and customized to their exact application, in order to maximize the added value. We aim to work closely with our Clients; thus, we aim to move closer. Petrofibre is currently in Phase 2 of establishing local manufacturing of our technology and all supporting elements within the GCC. We aim to achieve our Vision and to provide our Clients with a technology manufactured in the UAE, within the very near future.

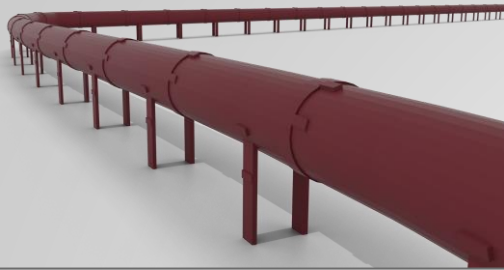
### OUR MISSION

Our objectives at present time evolve around an effective and efficient integration across all markets which we are present in. We are eager to showcase our technology and demonstrate to our clients the added value that it brings, build our reputation and international foundation. We aim to work closely with our clients and provide them with the tools necessary to achieve their strategic objectives of enhanced productivity & efficiency, greater innovation & sustainability, improved health & safety and environmental awareness.

### OUR CORE VALUES



# COMPLETED PROJECTS 2008-2021



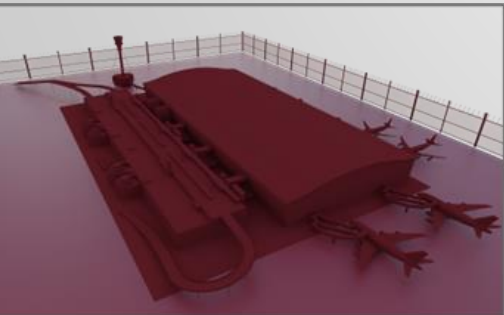
- Transneft. Eastern Siberian - Pacific Gas Line 2 - 2050km
- Transneft. Baltic Transportation Gas Line - 1001km
- Transneft. Samotlor Gas Line - 429km
- Transneft. Tupase Gas Line 2 - 350km
- Transneft. Tikhoretsk Gas Line - 325km
- Transneft. Obvodnoi Pipeline - 250km
- Transneft. Irkutsk Gas Line - 250km
- Transneft. Purpe Gas Line - 200km
- Transneft. Tichoretsk Gas Line- 250km



- Sibur, Tobolskii gas and chemical complex product line - 417km
- Novatek - Total. Pyreinoe Gas Line - 250km
- Novatek - Total. Termokarstvov field gas lines - 300km
- Novatek - Total. Yarudeiskii field gas line - 350km
- Novatek - Total. Yakhinskii field gas lines - 180km
- Novatek - Total. Norther Khichinskii field gas lines - 100km



- Tatneft Shashin, Republic of Tartarstan, 205 wells
- Lukoil, Western Siberia, 25 wells
- Gazprom, Western Siberia, 6 wells
- Rosneft, Sakhalin, 5 wells
- Rosneft, Eastern Siberia, 2 wells



- Rosaviatsia - Pulkovo Airport, St Petersburg - Perimeter
- Rosaviatsia - Magas Airport, Ingushetia - Perimeter
- Russian Rail, central Russia, 140km of Railway

# OUR PRODUCT PORTFOLIO

## MODULAR MONITORING UNITS

### VOSK-A SERIES



Opto-electronic sensing unit. Uses Real Time Distributed Acoustic Sensing (DAS).

- Can identify and distinguish following activity in real time mode:
  - pipeline leak
  - human traffic
  - vehicle traffic
  - animal traffic
  - attempted work with tools/excavation attempts.
- Accuracy of location of impact is +/- 5 meters
- Is able to detect human up to 3m away from the cable, SUV up to 15m and heavy digging machinery up to 50+ m
- Spatial resolution +/- 5 meters
- Zone creation and integration ready

Applicable to:

- Pipeline Leak Detection
- Intrusion Detection
- Seismic Studies

Models:

- VOSK-A 100. Maximum linear range of 100km
- VOSK-A 75. Maximum linear range of 75km
- VOSK-A 50. Maximum linear range of 50km
- VOSK-A 25. Maximum linear range of 25km

### VOSK-L SERIES



Opto-electronic sensing unit. Uses Real Time Distributed Temperature Sensing (DTS).

- Identifies leaks due to rapid temperature change
- Compatible with low pressure pipelines
- Zone creation and integration ready
- Temperature measurement range -60°C-300°C
- Sensitivity of 0.1°C
- Spatial resolution +/- 5 meters

Applicable to:

- Pipeline Leak Detection

Models:

- VOSK-L 50. Maximum linear range of 50km
- VOSK-L 25. Maximum linear range of 25km

### VOSK-S



Opto-electronic sensing unit. Uses Real Time Distributed Deformation Sensing (DDS).

- Registers deformation caused by the changes in the physical properties of FOC and light signals
- Deformation threshold alert is programmable
- Relative elongation at length of at least 10m +/- 0.01% - Rayleigh scattering
- Maximum linear range of 100km

Applicable to:

- Monitoring of the structural integrity of complex infrastructures: bridges, dams, skyscrapers, HV Towers, etc.

# OUR PRODUCT PORTFOLIO

## VOSK-T



Opto-electronic sensing unit. Uses Real Time Distributed Temperature Sensing (DTS) to measure absolute temperature

- Measuring range from 0°C-300°C
- Accuracy of 1°C
- Linear range of 6km
- Primary application is the monitoring of perforation intervals, allowing to identify proper flow, leak or perforation blockage
- Ensures constant operation, without need for shutdown
- Applicable to both oil and gas wells, horizontal, vertical and conventional

Applicable to:

- Monitoring of perforation intervals, allowing to identify proper flow, leak or perforation blockage

## VOSK-RT



Opto-electronic sensing unit. Monitoring temperature and pressure with point sensors

- Maximum 2 sensors per unit
- Measuring range from 0°C-300°C
- Pressure monitoring range of 0-75Mpa.
- The pressure monitoring range can be adjusted to monitor down to 0-2.5 Mpa. Lower range results in more accurate readings

Applicable to:

- Monitoring of temperatures and pressures at intervals of perforation

## FOSM Monitoring Complex

All of our VOSK Modular Monitoring units form part of our FOSM Monitoring Complex. The FOSM is an adaptable and customizable solution, featuring all the required system accessories for the correct monitoring functionality and to meet the demands for system redundancy, reliability and safety.



# OUR SERVICES PORTFOLIO

## Object design and planning

- Basing ourselves on our experience of incorporating our FOSM system, we are prepared to provide the descriptive part of the project, schemes, plans, methods of adjustment and installation, methods and protocols of data transfer, etc.

## Shipment of the equipment to its designated location of use

- We will facilitate the full set of the FOSM system at our warehouses and will organize shipment of our technology to the designated location of use and/or, if the client wishes so, to the client's warehouse.
- We additionally provide agent services of transshipment and forwarding of general and sea cargos.

## Installation supervision of our technology

- Our specialist will provide control and supervision over the installation and ensure that it is compliant with the technical recommendations and sensitivity element of the fiber-optic cable along the entire range of the project.

## Installation of electrical and fiber-optic system FOSM-M

- We are willing and able to put together and install our technology at the location of designated use. We will further test and ensure that all is in order and operational.

## Commissioning works

- We are ready to configure the settings and configuration of our technology and establish a connection with the sensitive element of system FOSM to the graphics display of the given object on the monitor of the operator. We are further able and willing to provide training services to our client's staff on usage and maintenance of our technology, as well as product testing.

## Engineering support

- In accordance with our client's demands, we are ready to facilitate engineering support in the process of operating the system FOSM in the pre-agreed upon period of time. During the time of support provision, we will be collaborating and working with the client's staff with the aim of adapting the system FOSM to the client's requirements and demands.

## Tech Support 24/7/365

- Our staff will be online at any moment if our client's operators encounter any issues. They will respond as soon as possible and ensure a swift recovery with minimal shutdown time.

## Warrantee period

- We will provide immediate corrections to any malfunctions of the system FOSM and facilitate the technical servicing of our system throughout the guarantee period (2 years).

## Servicing of our technology

- Once the guarantee period has to come to an end, we are ready to provide a servicing contract for our client and provide technical maintenance and the facilitate the uninterrupted working of our systems.

## Freight forwarding services

- We provide wide range of international sea and inland freight forwarding services which include, but not limited to: Organization of freight transportation by any means of transport (by sea, rail or road), cargo preparation for transportation, execution of shipping, preparation of cargo documents, forwarding of cargo during its transportation and cargo security, receipt of cargo at the place of its destination.

# MAIN BENEFITS OF USING OUR SYSTEM

- Increase in the safety and awareness of the guarded asset by providing reliable data in real time
- Increased response time and effectiveness due to system's accuracy and by being able to classify incidents, reacting with precision and stopping intrusion attempts at the earliest possible stage
- Monitoring method not based on individual sensors, nullifies false alarm incidents, results in a more efficient flow of operations with minimal shutdown time
- Ability to integrate – provides the opportunity to incorporate into existing SCADA & Monitoring units and monitor multiple perimeters, from one location
- Electrically passive and will not be deterred by electrical equipment on site
- Provides high redundancy and is able to fully function even when cable is cut – security is not compromised
- Adaptable & customizable to any client requirement & application
- Ability to program zones
- Provides safeguarding for collected data and immune to hacking attempts
- Multifunctional
- Low maintenance and operational costs
- A redundant and innovative solution

## COMPETITIVE ADVANTAGE

### Technological Advantages

- More accurate and precise data
- Redundancy and reliability
- Significant reduction in false alarm incidents
- Multifunctionality
- Integration and connectivity
- Flexibility and adaptability
- Low operational costs and maintenance
- Informational safety

### Service Advantages

- We build to customer specification – unique and custom fitted design, engineering and technical solutions for any of our client's needs
- We offer a 2 year warranty period for any damaged or malfunctioning units
- Our aftersales services include full technical installation and training sessions for system operators
- Quick and effective tech-support and spare parts package

# A MESSAGE FROM OUR BOARD OF DIRECTORS

Now, more than ever before, it is vital for an organization to ensure complete control and awareness over its assets. Accountability & sustainability, health & safety, environmental responsibility & awareness, innovation & progress, consistency & efficiency of the production process, security & assurance - these are at the forefront of strategic objectives that businesses place before them and prioritize. At Petrofibre International, we prioritize our client's strategic objectives and provide the necessary tools in assisting in their completion.

We strive to provide our clients with the most advanced means of fibre-optic based monitoring and surveillance. Our goal is to provide our clients with security and stability; allowing for a greater safeguarding of assets and ensuring maximum efficiency, productivity, innovation and control with the highest possible accuracy, in real time. We take pride in our work and in our results, especially the benefits that these results bring to our clients. We set a high priority on Research & Development, collaborating with numerous academic and research institutions, in order to push our systems further, open new opportunities and broaden the horizons of what we can offer our clients.

We put our outmost efforts into ensuring that our operations are conducted in accordance to our core values: Innovation, Progression, Accountability, Quality, Adaptation, Continuous learning & improvement, Client Value Creation, Integrity and Cooperation.

Board of Directors  
Petrofibre International

## CONTACT INFORMATION

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