TF Kable

Connecting
Globally

LEADING MANUFACTURER OF CABLES AND WIRES

TFK.Group produces, among others, cables for the energy sector in the following product groups: low voltage power cables up to 1 kV, medium voltage power cables from 6/10 kV to 18/30 kV, high voltage power cables from 36 kV to 150 kV, extra high voltage power cables from 220 kV to 400 kV, cables; telecommunication copper and fiber optic cables; rubber insulated cables, including mining and crane cables; control cables for data transmission and security, as well as Inter-array cables (33 kV & 66 kV), Subsea Power Umbilicals, Steel Tube Umbilicals, rental and oil & gas services, i.e. submarine cables (including cables connecting wind towers and export cables), which are used in the construction and operation of offshore and onshore wind farms.

Leading manufacturer of cables and wires

TFK.Group is one of the global market leaders of wires and cable systems, with numerous trading companies and production plants located in many countries, as well as service units and research and development centers.

In August 2017, the British company JDR Cable Systems - a leading manufacturer of submarine cables and provider of offshore and onshore services for the global wind energy industry joined TFK.Group.

TFK.Group belongs to a small group of a few most specialized and technologically advanced suppliers of high and extra high voltage cable systems.

The maintenance and control services provided by TFK.Group is dedicated to oil and gas and renewable energy extraction systems subsea and on land. In addition, the extensive infrastructure of research and development centers allows for qualification tests, routine tests, technological tests and fire tests.

Our experience is confirmed not only by continuous supplies to electricity distribution network operators or as part of ongoing investment projects for conventional and wind farms, but also by positive results of production process audits carried out by the most renowned certification bodies.

JDR Cable Systems is a global leader in subsea production umbilicals, subsea power cables and Intervention Workover Control Systems for the offshore oil and gas industry. JDR operates in harsh, dynamic, subsea environments and is a pioneer in the development of cutting-edge inter-array power cables for offshore wind, wave and tidal energy projects. Additionally, JDR supports customers in the renewable energy sector throughout project planning, mobilisation, installation, commissioning and maintenance, providing total lifecycle support.

30 years of TELE-FONIKA Kable, 1992 – 2022

It took us 30 years to build TFKable.Group – a cutting-edge business made up of highly qualified experts; a family corporation that takes up the challenges of competition in various areas and sectors of modern energy, industry, and the international supply chain. We are an active participant in the green revolution that is taking place in the development of offshore wind energy.

Key data & facts

100%
Polish capital

25,000
types of wires and cables

30%
market share in Poland*

7 manufacturing plants
6 distribution units
2 service units

No 1
the largest cables and wires manufacturer in Eastern Europe

one of the top **25.***
largest Polish exporters

4th*
place on the European market among technologically advanced cables and wires manufacturers

approximately **1.25 bn €**
annual income

5th*
place among rubber cables manufacturers in the world

over **500**
production lines

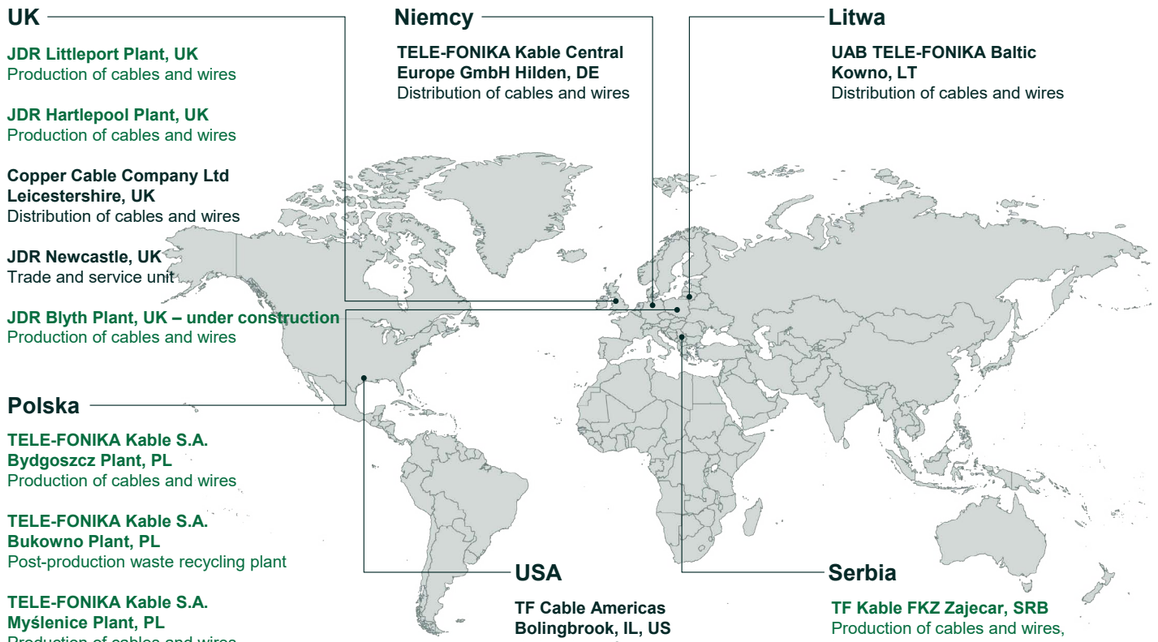
330
international certificates

Present in more than **80**
countries

*management estimates

Production & distribution – locations

Manufacturing plants **Service units and subsidiaries**



Kraków - Wielicka Plant, Poland

one of the biggest cable factories in Poland. It manufactures power cables and wires, including rubber insulated cables and wires applicable in the mining industry and in the offshore and onshore wind farms. As one of the few European manufacturers, the plant is a supplier for mines located in the US, Canada, South America, and Africa. Its offer also includes specialized cables for applications in the railway and shipbuilding industry.

Bydgoszcz Plant, Poland

the oldest cable and wire factory in Poland and the biggest production center of medium, high and extra-high voltage cables in Europe. Together with the plants in Littleport and Hartlepool, it belongs to the elite group of direct suppliers of complete solutions for the offshore electricity industry.

Myślenice Plant, Poland

production of fiber optic and telecommunication cables, computer cables and car cables.

Zajecar Plant, Serbia

production of Al and Cu wires, low and middle voltage cables, signaling and control cables, telecommunication cables, as well as halogen-free cables and wires and car cables.

Waste Recycling Facility in Bukowno, Poland

it has the recycling capacity of approx. 10 thousand tons of cable waste per year. This allows for the recovery of fractions from individual materials with purity of over 99.5%

Littleport Plant, UK

design and engineering services, IWOC, Subsea Production Umbilicals and Power Cables up to 100 t production. The plant has specialized research facilities.

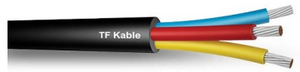
Hartlepool Plant, Victoria Dock, UK

the biggest JDR production plant with specialized designed teams. Strategically located on the quay, next to the port on the North Sea. A plant with an area of 20,000 m², commissioned in 2009, supplying and producing Subsea Production Umbilicals, Subsea Power Cables and Inter-array Cables. Modern infrastructure of the machine park provides flexibility of the large-size cables production process.

Blyth Plant, UK. JDR has reached financial support under the UK government's Offshore Wind Manufacturing Scheme (OWMIS) for its new state-of-the-art subsea cable manufacturing facility in Cambois, near Blyth, Northumberland - it`s a new state-of-the-art subsea cable manufacturing facility. The new facility is the first stage of JDR's plans to expand its product portfolio to support the growing global renewable energy market, adding high voltage export and long-length array cables to its existing capacity and product capabilities and will complement the existing JDR offering provided by the company's Hartlepool and Littleport UK manufacturing centers. When complete, the facility will include a new CCV line, making it the only facility in the UK capable of full start-to-finish manufacturing of high voltage subsea cables for offshore wind farms. Thereby, the new JDR facility will strengthen the strategic position of JDR's manufacturing position in the UK, as well as in the global space in the renewable energy market, due to the full capacity for comprehensive (in-house) production of high-voltage submarine cables dedicated to the sea wind farms.

We provide innovative and safe solutions for industry

TFKable manufactures:



low voltage cables

electroinstallation wires

fibre optic wires

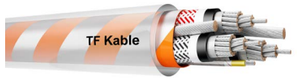
medium voltage cables

signalling (controlling) cables

rubber cables and wires

high and extra-high voltage cables

copper telecommunication cables



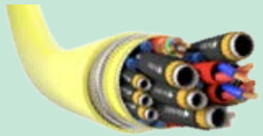
mining cables

1 kV Cu and Al cables

JDR's cable production covers:

Inter-Array Cables

used in offshore wind farms



Subsea Power Cables
Subsea Power Umbilicals
Steel Tube Umbilicals

used in the oil & gas industry

Intervention Workover Control Systems (IWOCS)

offshore services in oil & gas and renewable energy sectors

TFK.Group’s innovative solutions

Electric Down Line (EDL)

Equipment is used primarily for subsea testing on new subsea installations and older assets, checking for insulation resistance and electrical fault finding. We have added this new equipment to our rental fleet.

Fire Test Laboratory

Equipped with apparatus that enables conducting research ranging from basic tests of flame spreading on individual samples to flame spreading tests on bundles. Furthermore, it is equipped for testing density of emitted fumes and emission of corrosive gases.

TFPowerPack - energy storage

Equipped with apparatus that enables you may become energy independent, reduce energy costs, protect your company from power outages, facilitate the adoption of renewables and reduce CO_2. Our business model involves turnkey installation i.e.from the analysis of network needs, through the design of the appropriate solution, its production and assembly, on-site installation, training of employees and services, up to long-term service.

Extra High Voltage Laboratories

Equipped with 5 Faraday cages for routine testing, type testing and cable systems testing) along with an impulse generator and its own prequalification (PQ) tests field with 500 kV test system and sets of 5000 A heating transformers.

Resonant Test System (RTS)

For testing 66 kV offshore inter array cables. This solution supports the post installation stage to ensure the cable and all accessories are defect free in the offshore wind platforms.

Damped AC test unit

This new technology is added to our range of capabilities to support the high voltage power cable market. This unit will shortly be making its way offshore to test substation interconnector cables on a large Scottish offshore wind farm.

Laboratory of Extra High Speed Cables

The Laboratory will be used to conduct tests on designs of cables in rubber insulation and outer sheath, for highspeed mobile applications, which are used in loading and transport equipment. For this purpose, a special equipment was made a test crane, simulating the actual operation of control and power cables in the 1:1 scale. The test crane is complemented by the device for bending tests in extremely low temperatures, even up to -40°C.

Service units

Tomball Service Center, TX, US

assembly, integration and testing of umbilicals, reelers and associated packages. The unit provides technical support for projects mainly in the Gulf of Mexico, and for offshore commissioning, testing and repair work at sea.

Newcastle Service Center, UK

the multi-functional research and development center includes workshop and warehouse. The unit also serves as the central one base for JDR's service activities in Europe and the Asia region and the Pacific.

Sales sectors

Unique features of the TFK.Group's products

Mining

- safe and reliable operation in a challenging environment
- resistant to high temperature, humidity, UV radiation
- resistant to tearing and abrasion, twisting, bending, water, oils and other chemical substances
- flame retardant
- ensuring the continuity of underground work and on the surface
- visible from a considerable distance (reflective cables)

Construction

- flexible
- non-spreading flames, gases and fumes
- very good identification (spatial-graphic marking)
- easy to process - separating thread
- durable - high-quality insulation
- anti-rodent barrier
- torsion resistant and able to work in low temperatures

High voltage

- security
- error-free energy transmission
- reliable water blocking design, sealing
- meeting the requirements of high current carrying capacity

Telecommunication

- wide application - to be installed in cable ducts or directly in the ground
- reinforced construction preventing mechanical damage
- high-performance
- durable
- resistant to flame spreading

Energy and Railway

- durable
- resistant to extreme working conditions
- guaranteeing safe operation
- resistant to mechanical damage
- resistant to flame spreading and gas emissions

Offshore wind energy

- Subsea MV/HV power cables (static/dynamic)
- Subsea control and power umbilicals
- IWOC Systems, flying leads & topside cables
- product and installation suport
- engineering services

We provide reliability through demanded quality

The only modern **Polish Fire Test Laboratory** that allows conducting tests of flammability for cables and wires.

ERCONET Media Management System that enables the analysis and effective management of energy utilities.

Circular economy at the Recycling Department Cable Waste in Bukowno, Poland, thanks to which we recover fractions with a purity of over 99.5%.

Modern Quality Control Laboratories equipped with specialized control and measurement devices.

Fully automatic **Im320 E mixer** designed for the production of rubber compouds.

Implementation into production improved flame retardant cables that use a new type of halogen-free materials which have advanced properties using the synergy effect of flame retardants.

Usage of 80% of waste heat from the operation of compressors for hot water heating.

Introducing plastic tape into multi-core cable constructions – limiting particle emissions during multi-core cable production.

Withdrawal of paper insulation cables and lead coating – elimination of lead emissions and reducing the amount of hazardous lead waste.

Introducing single-phase mixes – a decrease in energy costs, a decrease in rubber mix waste by 50%, a decrease in fuel use, and fuel emissions.

Withdrawal of ETU from polychloroprene mixes – introduction of copounds without this harmful substance.

TH!NK SAFETY, TH!NK QUALITY and TH!NK GREEN programs assuring the highest risk management standards concerning health, safety and environment.

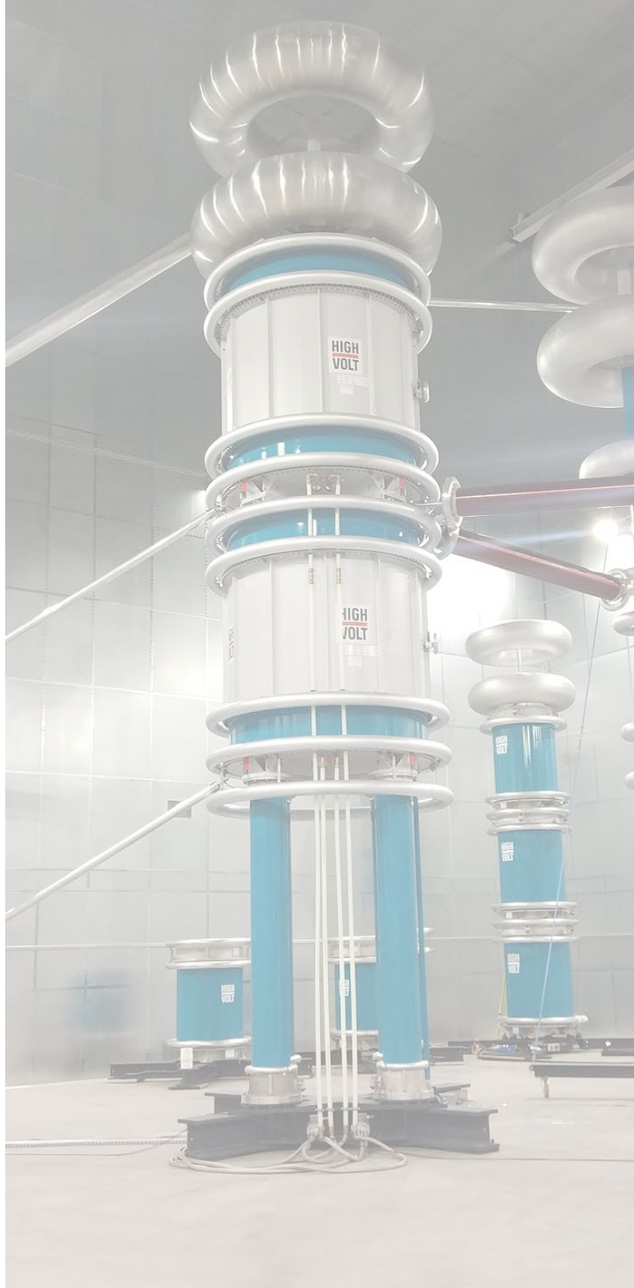
TFKable Academy – training programs for employees and external specialists. In 2019 we trained nearly 2100 people.

KAIZEN, TPM, SMED, 5s (6s) - implemented tools for continuous improvement of operational processes. In 2019, more than 300 improvements were reported, increasing production safety and quality.

TH!NK SAFETY

TH!NK QUAL!TY

TH!NK GREEN



TFKable products meet 100% of the CPR requirements

Declaration of Performance (DoP) compliance with all the CPR regulations

Successful passing of all the required production process audits

Implementantion of new labels in accordance with the requirements of the CPR Directive

Implementation of CE marking on products

Over several hundred flammability tests at the Fire Test Laboratory

Reduction in use of PVC material in higher class products

Introduction of full range of products in various classes of reaction to fire

CPR F_{ca} | CPR E_{ca} | CPR D_{ca} | CPR C_{ca} | CPR $B2_{ca}$

Introduction of a uniform classification of cables and wires produced by TFKable

Implemented LSOH – Low Smoke Zero Halogen

A type of halogen free material used as the outer sheath of cables intended for installation in buildings with increased fire protection requirements.

Fire Test Laboratory in Krakow-Wielicka Plant

Has the possibility of testing flame propagation, fire resistance, resistance of electrified cable to flame spreading with mechanical impact/ or water, measurement of density of fumes generated during combustion of a cable/wire burning, flaming droplets. The laboratory also conducts tests for determining fire class of wires and cables.

We have appointed a team of specialists, who will provide the necessary explanations and answer any questions that may arise in connection with the changes resulting from the CPR regulation. More information: cpr@tfkable.com

Since 2019, TFKable, together with members associated in Europacable, is leading an educational and information campaign "Fire safety is our responsibility. Yours Too!" related to the Construction Products Regulation (CPR). In the summer of 2020, another edition of the campaign began - "Inside CPR". In addition to educational resources the site at cpr.europacable.eu/pl also contains a free training program "My CPR coach"

Quality connects us

We have 330 quality certificates granted by 39 certification centers from around the world.

On a yearly basis our Technology Department

conducts **48*** development projects related to new product groups

creates **1500*** indexes

conducts **1000*** trial productions

*according to internal data

We provide innovative and safe solutions for industry on the local and international markets.

We cooperate with significant industrial and scientific partners – with their help we provide reliability.

Europacable, BCA, ICF, PSEW, CIGRE, PIGE EDA, BSI, CMPS, LEA, ACI, PPC, PTMEW, Cooper Mark

Environmental protection

ISO 14001
standard implemented
at TFKable and JDR

10,847 + km
of sealed cables delivered to
offshore wind farms

6,060.40 tCO_2e
Total Scope 1 GHG emissions
at TFKable

80,206.6 tCO_2e
Total Scope 2 GHG emissions
at TFKable

0.7 MWh/tonne
TFKable energy intensity
indicator

27,186 t
Total weight recycled waste

Recycling
key disposal method
at TFK.Group

More than
45%
of new suppliers audited