



VACUUM UNIVERSE

HIGH-TECH MANUFACTURING SOLUTIONS



01

VACUUM
EQUIPMENT



02

VACUUM
TECHNOLOGIES



03

READY-MADE
SOLUTIONS

ferryvatt.ru



Small
Hi-Tech
Company

INNOPOLIS

Sk Resident



NATIONAL
CHAMPIONS
Association of Fast-Growing
Technology Companies

FERRY VATT LLC develops and manufactures vacuum equipment for scientific and industrial applications—ranging from individual units to comprehensive process systems.

The company was founded in 1991 by specialists from the NPO of Vacuum Engineering (Kazan) and continues to build upon more than half a century of experience in the Russian industry. Today, FERRY VATT is a group of companies that unites its own manufacturing facilities, a design bureau, and R&D centers, enabling full-cycle project execution—from development to the launch of full-scale production. The team consists of graduates from relevant departments at N.E. Bauman Moscow State Technical University, Tomsk Polytechnic University, Kazan National Research Technical University (KNTU) -KHTU, and Kazan Aviation Institute (KAI), with hands-on experience in vacuum and plasma technology.

The company's solutions are used by state-owned corporations, research centers, universities, and industrial enterprises. Projects are developed to meet specific customer requirements, taking into account process specifications, operating conditions, and scalability.



@ferryvatt



ferryvatt.ru



YouTube

FERRY VATT LLC
159 Adel Kutuya St., Kazan,
Republic of Tatarstan, 420087, Russia
Tel./fax: +7 (843) 208-60-20
info@ferryvatt.ru

All information is subject to change without prior notice. FVM-04-26EN (April 2026)

About Us

The FERRY VATT Group of Companies brings together engineering, production, research, and applied capabilities, creating a unified platform that covers the entire cycle from development of technology to finished product and manufacturing.

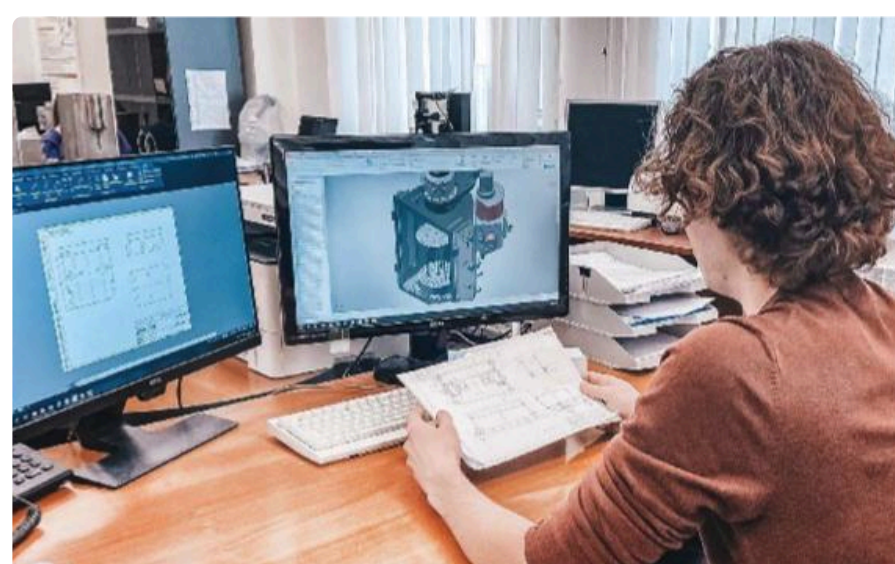
FERRY VATT
Engineering & Technologies



FERRI VATT Production
Machine-Building Workshop



LABORATORY 23
R&D and Prototyping



The Group integrates engineering, R&D, manufacturing, and applied expertise, enabling the design of equipment for non-standard applications and its advancement to industrial operation.

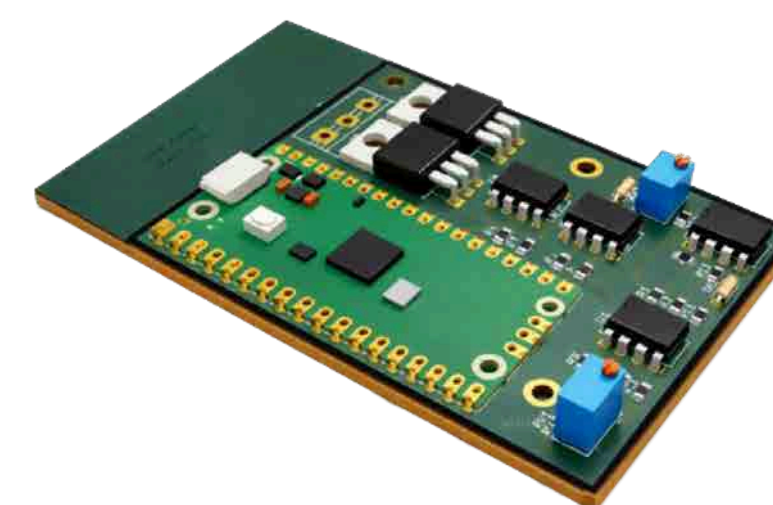
ARIKO Food-Tech

Development of vacuum drying and product freeze-drying solutions.



MIFTAHI Vacuum

Vacuum electronics, components, and emerging areas in electronic and instrumentation technology.



We offer

R&D OF NEW MATERIALS AND TECHNOLOGIES

We develop advanced materials, process technologies, and applied solutions for industry and science

35+

years in the vacuum equipment manufacturing market

12+

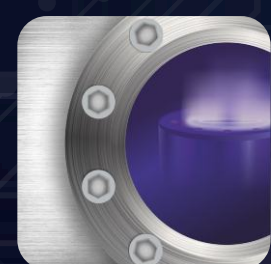
Our equipment is exported to more than 12 countries

200+

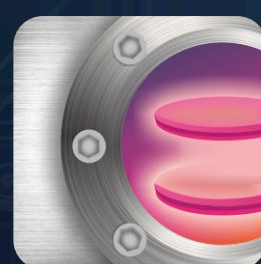
Completed high-tech equipment development and manufacturing projects

NEXT-GENERATION EQUIPMENT

We bring to life technological solutions in vacuum, mechanical engineering, and specialized equipment.



Thin-film coatings



Plasma treatment



Composite forming



Turnkey solutions



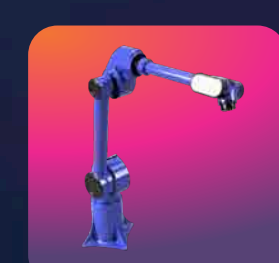
Vacuum thermal processes



Vacuum testing

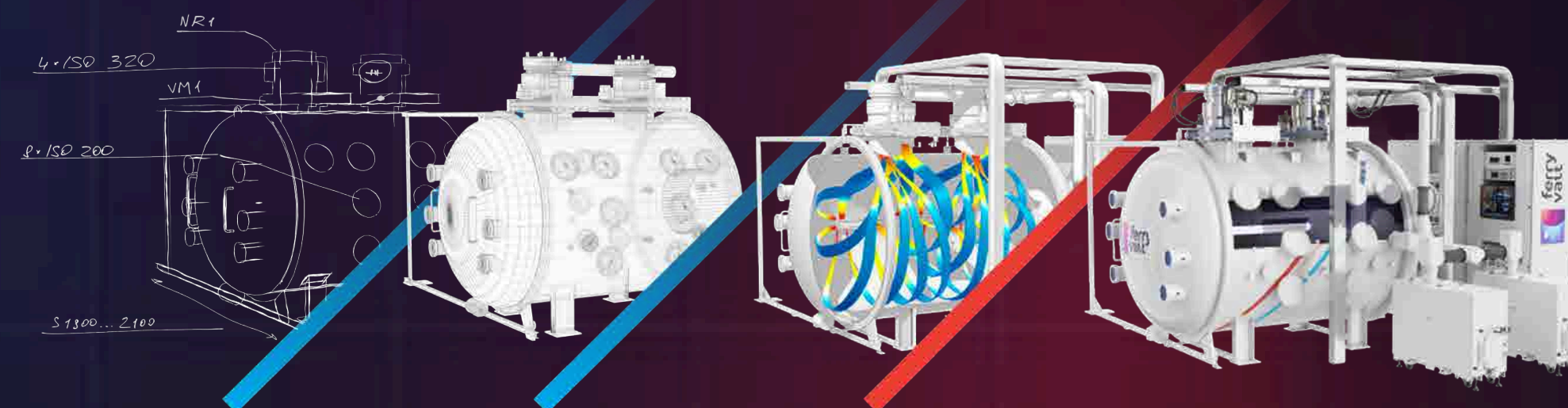


Special technologies



Robotic systems

FROM R&D AND ENGINEERING TO NEXT-GENERATION EQUIPMENT AND READY-TO-OPERATE FACILITIES



READY-MADE BUSINESS

We integrate research, technology, equipment, automation, and production logic into a single manufacturing ecosystem — from concept to a fully operational business.



Highly automated processes



Enterprise resource planning



Competitive high-tech products

History and Development



FERRY VATT HAS EVOLVED FROM VACUUM EQUIPMENT MANUFACTURING TO PROPRIETARY TECHNOLOGIES, AUTOMATION AND INDUSTRY-SPECIFIC SOLUTIONS.

The company has grown from a manufacturer of individual products into an engineering system that unites R&D, design, manufacturing, commissioning, and ongoing support – with continuously expanding expertise and increasingly complex challenges.

01

R&D & Problem Analysis

We examine product and process requirements

02

Technology Development

We select materials, parameters, and process logic.

03

Design

We define equipment architecture and prepare documentation.

04

Manufacturing

We fabricate and test the equipment.

05

Delivery & Commissioning

We supply, install, and validate on-site.

06

Training & Support

We train, support, and continuously improve the solution.



Company founded. First generation of FERRY VATT vacuum systems.



Expansion into CIS and Eastern European markets



Expansion into Western European and Middle Eastern markets



In-line vacuum systems VATT 600x1200M-ED and VATT 600-6 IMD



VATT 4000/5000 vacuum system series for roll-to-roll materials



Rebranding. Third generation of vacuum systems.



Coating system for large-sized products (up to 6 m) – VATT 5000-4M-S

1991

1998

2005

2006-2009

2013-2014

2019

2023

1995

VATT 1600 system series



2000

Company rebranding. Second generation of vacuum systems.



2007

VATT 900 system series



2012

Series of zone melting systems for single crystals – VATT UZP-800



2015

Vacuum impregnation line – VATT-5-VKP2.8.



2022

Vacuum infusion line for composites – VATT TIATs-1500/15.



2024

System for functional coatings on glass – VATT 1500-2 Md-I-Sh



Services & Advantages



We're ready to step in at any stage — from idea and pilot runs to full-scale production and ongoing support.

MANUFACTURING

In-house mechanical sections—blanking (cutting, bending, rolling), machining (milling, turning, CNC machining, grinding/polishing), welding (TIG, MIG, LBW), assembly and testing, and electrical installation.

R&D

Development of technology. Research and development work. In-house R&D R&D resource center.

MODERNIZATION, REPAIR AND TRAINING

Restoration and upgrade of outdated equipment.

DESIGN

Calculations, simulation, and development of documentation in accordance with the Unified System for Design Documentation (ESKD), the Unified System for Technological Documentation (ESTD), the Unified System for Software Documentation (ESPD), and Automated Control Systems (ACS). CAE modeling, prototyping, and physical process simulation for vacuum and plasma systems — including mechanical, gas dynamic, electromagnetic, thermal, and plasma modeling.

SALES

Sales of equipment and components — both proprietary and from third-party manufacturers.

SERVICE

Warranty and post-warranty maintenance. Equipment condition audits.

WHY CHOOSE FERRI VATT?



WE CREATE —
WE DON'T RESELL



FULL CYCLE —
INTEGRATED UNDER ONE ROOF



RECOGNIZED BY
INDUSTRY EXPERTS



TAILORED SOLUTIONS
FOR YOUR CHALLENGES



EXTENSIVE EXPERIENCE
AND CROSS-INDUSTRY EXPERTISE



CERTIFICATIONS
AND LICENSES



EVERYDAY APPLICATIONS



SMART
glass



3D
architectural
forms



Interior
decorative
coatings



Electrically
heated
glass



Thermal
barrier
coatings



IoT sensors
Smart home



Composite
materials



Wear-resistant
coatings



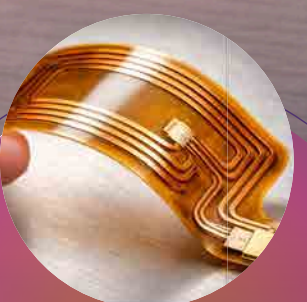
Reflective
coatings



Decorative
coatings

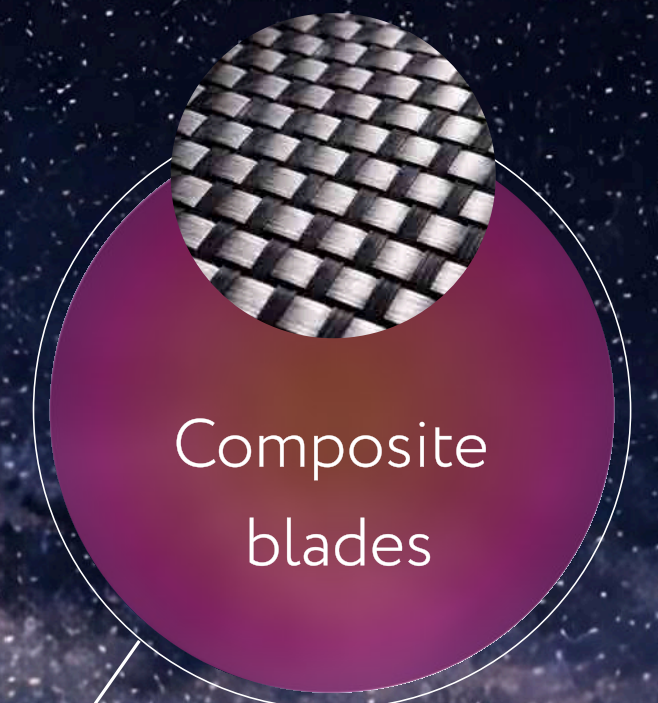
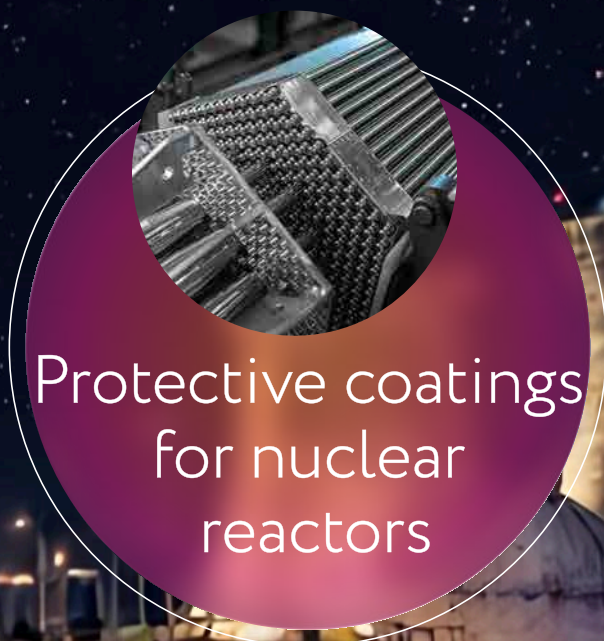


Optical
coatings



Microelectronics
process
technologies

SPECIAL APPLICATIONS



Digital factories

We position ourselves as a competence center for developing high-tech manufacturing facilities based on our proprietary equipment and production solutions

WHAT THE CUSTOMER GAINS



Production of high-tech finished products with full service support.



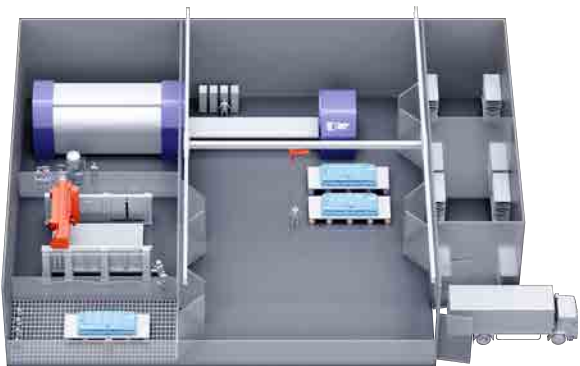
Lower costs, higher productivity, and reduced personnel dependency.



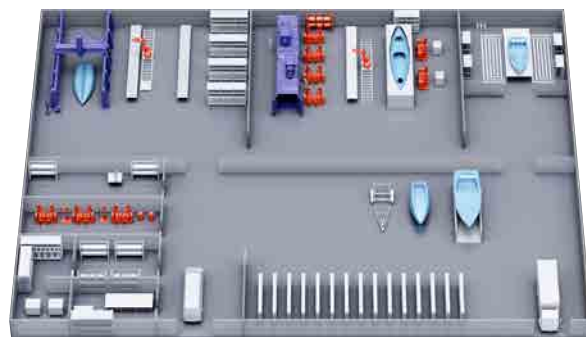
A competitive product with localized technology. The technological platform is adapted for rapid product pivoting to meet new market demands.



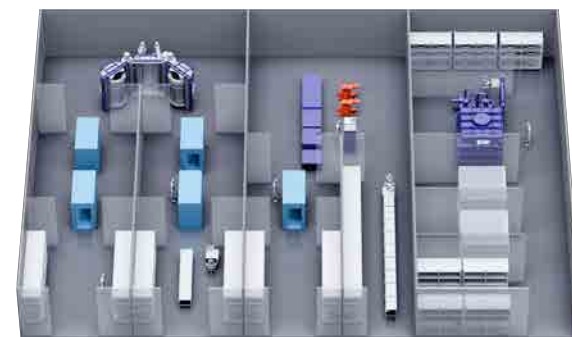
Digital production analytics



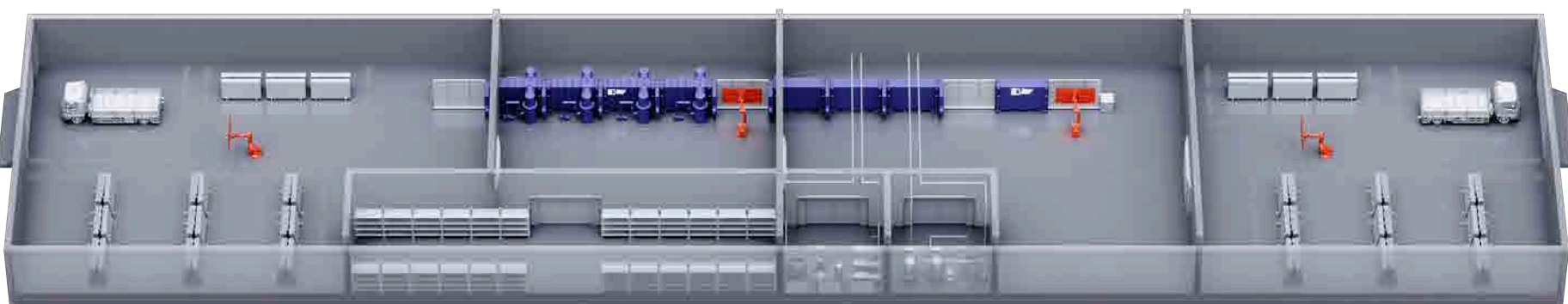
DIE REPAIR



COMPOSITES



DECORATIVE COATINGS



SMART GLASS

WHY NOW?

Markets are actively transforming toward industrial growth, economic diversification, and the adoption of advanced technologies. This creates unique conditions for establishing new manufacturing facilities to produce competitive, high-tech, value-added products with low operating costs.

PRODUCTION PARAMETERS



Automated manufacturing



Robotic automation — up to 65%



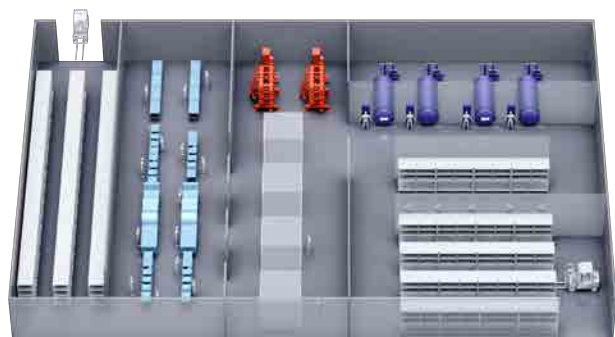
High product diversification



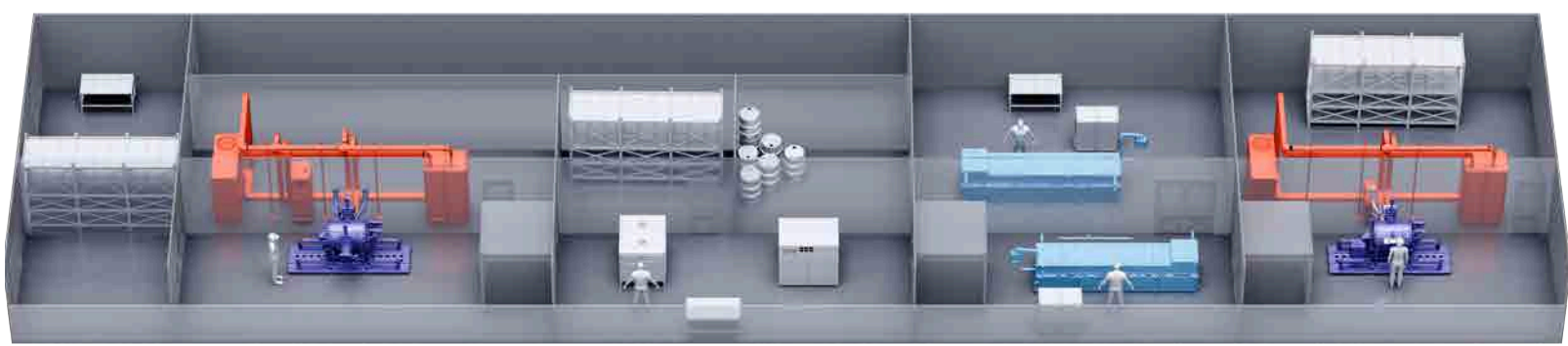
24/7 operation



WEAR-RESISTANT COATINGS



VACUUM DRYING AND FREEZE-DRYING



FLEXIBLE ELECTRONICS

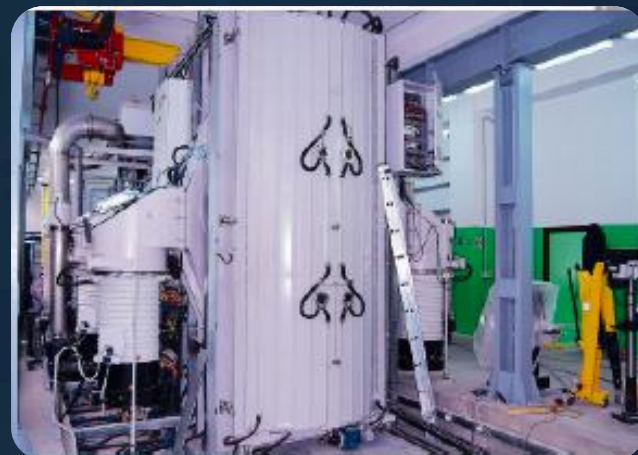
Industry solutions

ENERGY

Coatings and processing technologies to enhance the service life and reliability of power equipment components. Plasma activation, vacuum impregnation and heat treatment, composite forming. Application of protective and functional coatings, including solutions for catalysts, supercapacitors, and nuclear power.



THERMAL BARRIER
COATINGS FOR TURBINE BLADES



COATING SYSTEM
FOR GATE VALVE DAMPERS



COATING SYSTEM FOR
FUEL CLADDING TUBES (TVEL)

TRANSPORT

Coatings and technologies to reduce wear, friction, and extend the service life of transport machinery. Wear-resistant solutions for components and tools, functional coatings for glazing and interiors. Plasma surface preparation, composite materials, and vacuum heat treatment.



APPLICATION OF REFLECTIVE
COATING ON RENAULT HEADLIGHTS



VACUUM INFUSION FOR THE
MC-21 "BLACK WING"



COATING SYSTEM FOR MACHINE
COMPONENTS

ELECTRONICS

Thin-film coatings and processing for microelectronics. Conductive and dielectric coatings, ion implantation, plasma etching, surface activation, single-crystal growth, and vacuum brazing.



NEURON FLUX SENSORS
MANUFACTURING



OXIDE COATINGS ON HIGH-
TEMPERATURE SUPERCONDUCTORS



ION-BEAM SPUTTERING/ETCHING

MACHINE BUILDING AND METALLURGY

Vacuum melting of ultra-pure alloys, nanomodification, and powder production for additive manufacturing. Deposition of PVD/CVD hardening, wear-resistant, and thermal barrier coatings for tools and machine components. Vacuum 3D-printers. Eco-friendly replacement for electroplating. Vacuum heat treatment, impregnation of castings, plasma activation, and single-crystal growth.

CONSUMER MARKETS

Vacuum and plasma technologies for medical, food, and industrial products. Freeze-drying (lyophilisation) of products and materials. Application of biocompatible, antibacterial, and protective coatings on implants, instruments, and products. Plasma sterilization. Decorative and protective coatings for consumer and construction materials. Vacuum drying and thermal modification of wood.



DECORATIVE TILE COATINGS



SUBLIMATION OF FOOD PRODUCTS



FRACTAL COATINGS FOR
PACEMAKER ELECTRODES

DEFENSE

Special coatings, vacuum processing, and testing for special-purpose products. Application of protective and functional coatings on internal channels, components, and assemblies. Vacuum-compression impregnation, plasma activation of materials prior to bonding, vacuum testing. Solutions for composite armor plates, special alloys, and thin-film structures.



SPECIAL-PURPOSE COMPOSITE SHEETS

SPACE

Coating, processing, and testing technologies for aviation and rocket-space equipment. Hardening and protection of components, functional coatings, composite products, and vacuum processes. Testing under vacuum, thermal, and mechanical loads; testing of electric jet engines.



SPACE ENVIRONMENT SIMULATION
FOR ROCKET-SPACE EQUIPMENT TESTING

OPTICS

Low-reflective, reflective, filtering, and beam-splitting coatings, including energy-efficient and self-darkening solutions. Hydrophobic and oleophobic coatings, as well as DLC (diamond-like carbon) coatings for enhanced wear resistance. Final plasma polishing and etching for forming optical structures. Single-crystal growth of optical materials.



ANTI-ICING AND FILTER FOR AIRCRAFT GLASS

ЛЕГКАЯ ПРОМЫШЛЕННОСТЬ

Coatings and processing for the light and textile industries. Decorative and functional coatings for clothing and accessories, including solutions with conductive, heating, and barrier properties. Plasma treatment and activation of materials to improve strength, wear resistance, and resistance to environmental factors. SMART textiles, electromagnetic shielding.



PLASMA ACTIVATION AND
METALLIZATION OF FABRICS



COMPRESSION IMPREGNATION
OF SPECIAL-PURPOSE PRODUCTS



VACUUM ELECTRON BEAM 3D PRINTING



ELECTRON-BEAM DEPOSITION
OF A WIDE RANGE OF COATINGS



PLASMA ACTIVATION OF LEATHER AND FUR

Partnership and Contacts



WE ARE OPEN TO:

- Joint market introduction of competitive products;
- Equipment supply and technological integration;
- R&D and engineering work;
- Pilot and series production launch;
- Localization of solutions;
- Training and service support



**DOWNLOAD ADDITIONAL
MATERIALS VIA QR CODE**

If you're facing a new manufacturing challenge, we're ready to step in at any stage — from concept to full-scale production.

FERRY VATT – MATERIALIZE THE MATTER

CONTACTS

Tel./Fax: +7 (843) 208-60-20
info@ferryvatt.ru
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**FILL OUT A SHORT
QUESTIONNAIRE AND WE WILL
OFFER YOU A TAILORED
SOLUTION**

We are ready
to offer the best solution for your needs.



Our social media



ferryvatt.ru



ferryvatt.ru

GROUP OF COMPANIES



PROJECT SUPPORT

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CONFIRMED STATUSES



PROFESSIONAL ENVIRONMENT

