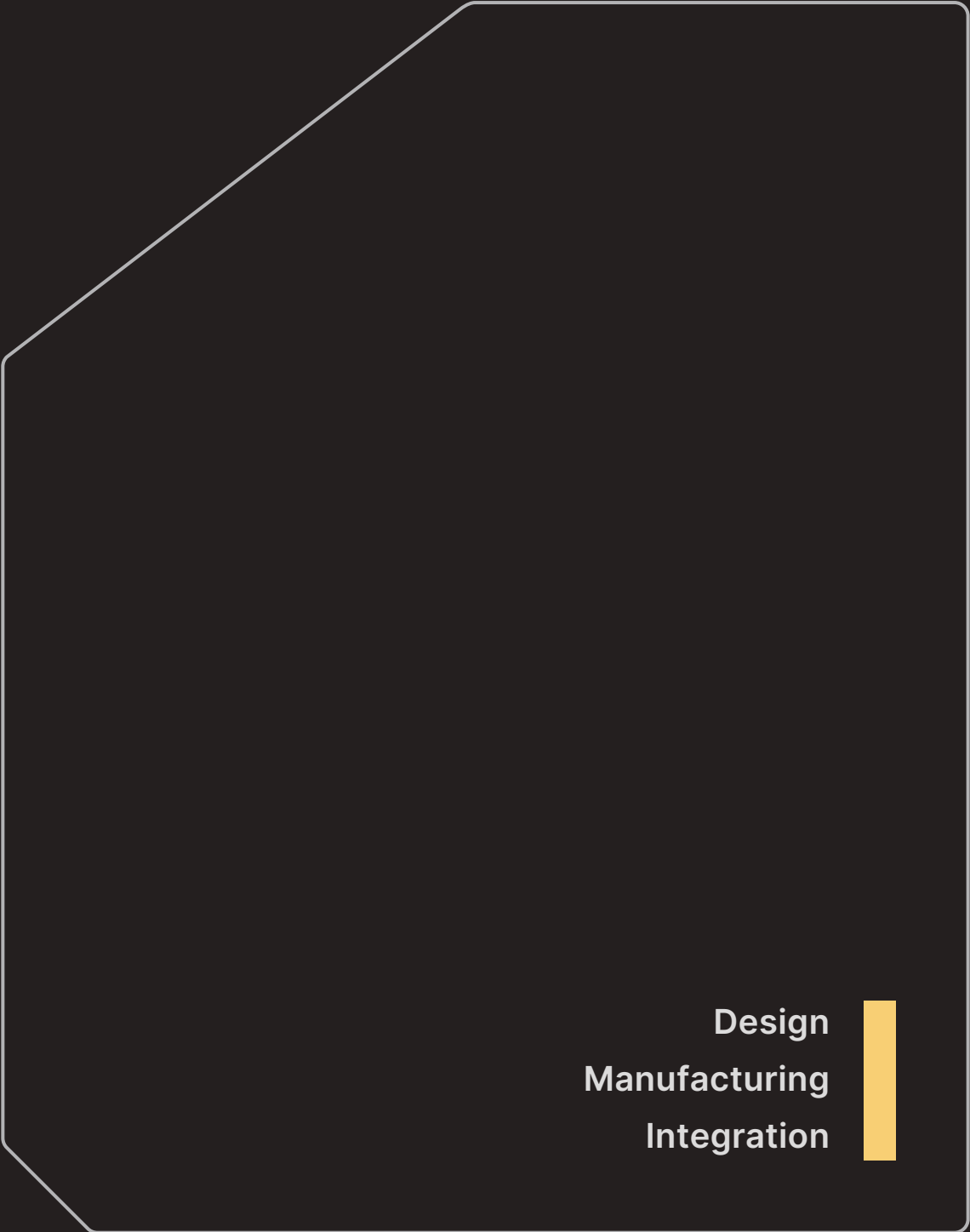


ZPAS



Design
Manufacturing
Integration





Dear Customers and Business Partners,

ZPAS is a company with more than 50 years of history. Our story began in Przygórze, at the foothills of the Owl Mountains of Lower Silesia, Poland, where our headquarters remain to this day. What started as a small experimental plant has grown into an organisation employing nearly 800 people across five manufacturing plants. We deliver projects for partners around the world, and many companies have been working with us continuously for more than 20 years.

We design and manufacture server and ICT cabinets, industrial enclosures, outdoor cabinets, control room consoles, as well as complete data centre solutions, from concept and installation to commissioning. In many cases, a project begins with nothing more than a customer's idea sketched on paper or existing only in an engineer's mind. Such projects require not only technical expertise, but also the ability to transform

a concept into a reliable and fully functional solution. With our in-house engineering, research and testing facilities, we are able to manage the entire process from initial concept to a finished and thoroughly verified product. This broad range of competencies allows us to maintain full control over quality, performance and delivery schedules.

Our products are used in industries where infrastructure failure is simply not an option, including IT, energy, telecommunications, industrial automation, public infrastructure and the uniformed services. For our partners, this means confidence in solutions designed specifically for their operating requirements rather than adapted from standard catalogue products. Behind every project stands a team of engineers, technologists, operators and specialists whose knowledge and expertise have been built over decades.

In the following pages, we present how this experience translates into practice: where we come from, the engineering and manufacturing capabilities we offer, the industries we serve, and the products we deliver. Technologies continue to evolve, but our approach remains unchanged. We listen to our customers, understand their needs, and take responsibility for solutions used in the most demanding applications.

I invite you to discuss how ZPAS can support your business goals.

Paweł Mierzejewski
CEO of ZPAS S.A.

► Why we do it

We create prosperity in our region by combining local roots with a global reach. We provide people with opportunities to grow and develop where they were born while contributing to projects of international significance. We focus on stability, quality, and responsibility, believing that the future belongs to companies that are open to change.

Our vision

Our vision is the satisfaction of our customers, employees, and suppliers. Success is something we achieve together.

Our mission

To be a global leader in the manufacture of telecommunications enclosures, automation cabinets, and outdoor cabinets, delivering complete solutions tailored to customer needs.

Our values

Teamwork, people engagement, and responsibility for results are the foundations on which we build relationships with our customers and partners. We understand respect in its broadest sense. It is not only about our attitude towards others, but also about the way we manage our business: transparent, predictable, and free from hidden agendas.

For us, integrity also means providing reliable and accurate information, because sound decisions can only be made on the basis of trustworthy data, both on our side and on the customer's side. We focus on solutions rather than assigning blame, because solutions are what keep projects moving forward. What we have built over the years, in both our field and our region, is something unique. That is why we believe it should be continuously developed and strengthened rather than replaced by copying other people's models and practices.

1973

Establishment of the Experimental Plant of the Institute of Power Engineering Automation Systems (IASE) from Wrocław in Przygórze



1980

Reorganisation into the Network Automation Manufacturing Plant (ZPAS), operating within the Scientific and Production Centre for Power Engineering Automation (CNP AE IASE)



1991

Employee-led privatisation and establishment of the Network Automation Production Plant Joint-Stock Company (ZPAS S.A.)



2003

Expansion and modernisation of the manufacturing plant in Przygórze



ZPAS

*If you want to go fast, go alone.
If you want to go far, go together.*

2007

Opening
outdoor cabinet
manufacturing
plant
in Nowa Ruda
3 500 m²



Opening
large-scale
manufacturing plant
in Nowa Ruda,
Stupiec
10 000 m²



2016

Opening
electrical
assembly plant
in Nowa Ruda
9 000 m²



2025

Opening
manufacturing
plant in Kłodzko
14 800 m²



► Technical and manufacturing capabilities

ZPAS employs nearly 800 people and operates 51 300 m² of manufacturing and warehouse space across five plants. Each plant specialises in a different area, from custom-engineered products and short production runs to electrical assembly, FAT, high-volume manufacturing, and warehousing. A shared IT and production planning system enables us to efficiently manage resources, adapt manufacturing processes, and respond flexibly to customer requirements.

Design and development are carried out by a team of 80 engineers, including mechanical engineers, electrical engineers, process engineers, and CNC programmers. The engineering department works both with customer-supplied documentation and with proprietary mechanical and electrical designs developed in-house.



■ Process optimisation

Assembly workstations are regularly analysed and optimised using lean manufacturing methods, from the arrangement of tools and components, through dedicated assembly kits, to two-bin systems that eliminate interruptions in the supply of materials to production lines. Every improvement is assessed in terms of measurable time and cost savings and implemented only when clear benefits are confirmed.

This is not a one-off initiative. We apply this approach systematically, often in cooperation with customers as their requirements evolve. Every stage of production is subject to quality control, including internal inspections, customer audits, and FAT testing prior to shipment.

5 plants

1 in Przygórze
3 in Nowa Ruda
1 in Kłodzko

51 300 m²

of manufacturing
and warehouse
space

R&D team

Research,
development
and innovation

80 engineers

Highly qualified specialists:
– mechanical and electrical
– automation and design

■ Planning and logistics

We normally schedule collections in line with the production plan, but we understand that customer timelines can sometimes change. In such cases, we can arrange temporary storage of finished products under agreed terms. The same applies to deliveries. If delivery schedules are known in advance, we can adjust shipment volumes and frequencies to meet the customer's current requirements. Transportation of finished products, from individual cabinets to complete deliveries to customer sites, is carried out in cooperation with trusted logistics partners in Poland and abroad.

By combining these capabilities, we are able to support the entire process, from design and technical documentation, through manufacturing and warehousing, to the delivery and installation of a complete solution at the customer's site, with the possibility of future expansion or modernisation as requirements evolve.



■ Production equipment

Our manufacturing facilities include laser cutting machines for sheets up to 3 000 × 1 500 mm and 8 mm thick, turret punching machines, press brakes, bending lines for carbon steel, stainless steel and aluminium, automatic and semi-automatic powder coating lines, and comprehensive welding capabilities.

► Fields we serve

Energy, telecommunications, industrial automation, data centres, rail transport, public infrastructure, and uniformed services are the key fields served by ZPAS. What they have in common is their reliance on specialised

■ Energy sector and industry

These are the sectors where our journey began. We supply enclosures, switchgear assemblies, and equipped cabinets, both as standard products and as custom-engineered solutions designed for specific projects. We also manufacture dispatch desks and deliver complete turnkey projects. Our solutions can be found in most control rooms across Poland. Process visualisation is another area in which we have built extensive expertise, from traditional mimic panels to today's video walls and large-format visualisation systems.

■ Telecommunications

The development of telecommunications infrastructure and changes in the way people communicate have always gone hand in hand, and we have been part of that evolution from the very beginning. Our outdoor cabinets, once used solely as remote telephone exchange enclosures, have evolved into multifunctional solutions supporting telephony, Internet services, and GSM access points. We also offer indoor telecommunications cabinets, including dedicated fibre-optic solutions supporting the expansion of FTTH networks. A common feature of all these solutions is ensuring the uninterrupted operation of active equipment through effective cooling and air conditioning, as well as backup power systems, including batteries and UPS units, whenever the primary power supply fails.

■ Automation and control

Every machine and production line has its own specific requirements, which is why this field is characterised by bespoke projects. We supply machine cabinets complete with electrical and control equipment, engineering support, and functional testing prior to shipment. In this sector, reliable operation and compliance with applicable standards are of paramount importance, which is why our solutions are designed to meet the required certifications. These capabilities are complemented by our ability to deliver complete control room projects, including bespoke dispatch desks.

■ Data centre and IT

The scale of requirements in this field can vary significantly, from a single server cabinet serving as a mini data centre for a small business to a complete turnkey data centre infrastructure project. Our solutions are built around standard ZPAS server cabinets and enclosure systems. As equipment density increases and data security requirements become more stringent, we provide cooling and air-conditioning systems, monitoring, access control, fire suppression systems, and remote supervision, together with service support. This is a rapidly evolving field, and our solutions continue to evolve alongside its changing requirements.

infrastructure, often operating in demanding environmental conditions. Each field presents its own technical and operational challenges and requires solutions designed with a thorough understanding of its specific requirements, including applicable standards, certifications, and operating practices. This expertise enables us to deliver solutions tailored to customer needs.

■ **Public infrastructure** (railways, airports, roads and ITS)

This is a field where enclosures must withstand more than just environmental conditions. Every project begins with a thorough assessment of the infrastructure's actual requirements, because we understand that it ultimately serves people.

For the railway sector, we manufacture equipped modules for trams and trains, as well as traffic control and monitoring cabinets. For road infrastructure, we design traffic signal control cabinets, while at airports our dispatch desks are used in operational control rooms. These are just a few examples of our capabilities.

■ **Uniformed services**

The armed forces, the fire service, and the police are among the customers whose needs we understand well and whose requirements for reliability and data security are among the most demanding.

We deliver solutions supporting cybersecurity, including those used in data centres. Our portfolio also includes cabinets for secure data transmission and dedicated communication systems operating independently of public networks, as well as control desks for dispatchers. Each solution is designed with a specific service and its real operating conditions in mind.

► Our products and solutions

Data communication enclosures

19" cabinets provide a secure and well-organised environment for IT equipment installation. They are available in floor-standing and wall-mounted versions. A wide range of configurations, accessories and design options allows each solution to be tailored to the requirements of server rooms, data communication networks and industrial installations.

Standard models available from stock help reduce project lead times and costs without compromising quality, functionality or reliability.



SZB IT network and server cabinets

More than 470 000 configurations of dimensions, doors, side panels, plinths and roofs

DSR colocation server cabinets

Up to four independent access zones within a single enclosure

SJB cabinets with worktop

For installing computer equipment in office environment

Z-CUBE wall-mounted cabinets

For standard network installations

Z-BOX wall-mounted cabinets

For heavier equipment installations,
load capacity up to 150 kg

- Standard models available from stock

- Fast delivery of custom configurations

- Solutions tailored to individual requirements

- Wide range of accessories for IT infrastructure organisation and protection

High-volume manufacturing ensures efficient delivery of large-scale projects.



► Our products and solutions

Z-SERVER cabinets

for small and medium-sized server rooms and data centres

A server cabinet is a key component of IT infrastructure. Its design affects equipment security, cable management, cooling efficiency, and future system expansion.

Z-SERVER cabinets have been designed for small and medium-sized server rooms and data centre environments. Our engineers support customers at every stage of a project, from requirements analysis and solution selection to manufacturing, delivery, and installation.





The Z-SERVER cabinet system includes a comprehensive range of solutions supporting the development and expansion of server rooms and data centres, including cold aisle containment, airflow management, cable management, power distribution systems, monitoring, and installation accessories.



Stable construction

A heavy-duty frame made of closed-section steel profiles ensures safe operation even under heavy IT equipment loads.

Efficient cooling

Doors with perforation covering up to 86% of the surface area ensure optimal airflow and help maintain proper operating conditions for installed equipment.

Load capacity up to 2 000 kg

Designed to accommodate heavy servers, UPS systems, and data centre infrastructure.

Modular expansion

A wide range of accessories makes it easy to adapt the cabinet to changing IT infrastructure requirements.

Quick installation

Tool-free equipment installation reduces deployment time and simplifies servicing.

High security

A 5-point locking system and integration with monitoring systems enhance the protection of critical IT infrastructure.

Convenient service access

Doors opening to 270° and removable side panels facilitate equipment installation, maintenance, and expansion.

Flexible configuration

The option to change the mounting width from 19" to 21" allows the cabinet to accommodate different types of equipment without additional modifications.

► Our products and solutions

Industrial enclosures

Industrial enclosures provide reliable protection for control systems, automation equipment, and electrical equipment used in industrial environments. They are widely used in manufacturing plants, production lines, and as stand-alone control cabinets. Designed for reliable equipment protection, they ensure long-term operation in demanding conditions.

We offer both bolted and welded enclosures tailored to the requirements of a wide range of industries, including energy sector, rail transport, and the machinery and heavy industry sectors.

In addition to standard products, we also deliver bespoke solutions. We provide comprehensive technical support, documentation, and flexible manufacturing capabilities, from individual prototypes to high-volume production.



Available from stock or made to order

Availability of standard products from stock reduces lead times, while made-to-order production allows solutions to be tailored to specific project requirements.

Direct access to engineers

Working directly with engineers from concept through to implementation ensures efficient design and the optimal alignment of each solution with project requirements.

Durability in demanding environments

Designed for use in environments exposed to dust, moisture, and mechanical stress, these enclosures provide long-term durability and reliable operation through the use of appropriately selected materials.

Proven manufacturing processes

Flexible manufacturing processes support both prototype projects and high-volume production. Proven solutions help reduce implementation times and accelerate project delivery.



► Our products and solutions

Outdoor cabinets

ZPAS outdoor enclosures operate in open environments, in both freezing and high-temperature conditions, where requirements are driven by environmental conditions rather than design assumptions.

However, we do not start from scratch. With more than 2 000 enclosure designs, our engineers use proven solutions as a basis for adapting each enclosure to the specific requirements of a project, application, and industry.

■ Reliable operation in any climate

From deep frost to extreme heat, the cabinet must operate reliably regardless of season or location. Depending on project requirements, we select heat exchangers, air-conditioning units, or reversible heat pumps, while cooling, heating, and ventilation systems are designed by our technical specialists.

■ Flexible internal configuration

The cabinet interior can be divided into independent compartments, such as battery, power supply, or telecommunications sections, depending on the functions required by the installation.

■ Expandability

The bolted design allows the cabinet to be expanded as the project grows, without taking already installed equipment out of service.

■ On-site installation

Our involvement does not end with the delivery of the cabinet. We also provide on-site installation services tailored to the conditions of each specific location.



■ Four enclosure types

Bolted

Double walls made of aluminium profiles

Hybrid

Bolted frame made of aluminium profiles, with aluminium or steel sheet panels

Welded

Steel frame with removable sheet steel panels

Monobloc

Steel or aluminium construction with a compact welded body



► Our products and solutions

Dispatch desks and control rooms

A control room is a complex environment where every element matters, and the dispatch desk is the component with which operators interact most directly. That is why we design, manufacture, and deliver it ourselves. We also provide all other elements of a modern control room, from initial concepts and designs, including all required approvals and permits, to on-site implementation and service support.

■ Our dispatch desks are used in control rooms at power plants, chemical facilities, gas installations and water treatment plants, as well as in police and military command centres, ITS traffic management centres, and airport operations centres.





Designed for demanding environments

The dispatch desks we design must support 24/7 operation while providing operators with a comfortable and ergonomic working environment during long shifts. An optional height-adjustable worktop further enhances ergonomics, while durable materials ensure reliable day-to-day use.

► Our products and solutions

Control cabinets and low-voltage switchgear assembly

Assembly is typically carried out based on customer-provided documentation, combining mechanical fabrication and electrical assembly within a single process. This is where the full scope of our capabilities becomes evident, as assembly projects are typically large-scale, multi-stage undertakings rather than individual orders.



Mechanical structures

Electrical assembly is primarily carried out on our own mechanical structures, including the cabinets we manufacture in-house. When required by a specific project, we also work with enclosures specified by the customer. This allows us to adapt to project requirements regardless of the enclosure type.

Own and supplied materials

We carry out prefabrication using both components sourced by ZPAS and materials supplied by customers on a consignment basis. Consigned materials undergo the same incoming quality inspection as our own materials and are fully recorded in our system.

FAT testing

The standard scope of inspection includes point-to-point verification of connections, continuity of protective earthing, and insulation resistance testing in accordance with applicable standards.

At the customer's request, this scope can be extended to include full FAT testing. Equipment is energised and tested under conditions closely resembling actual operating conditions. This makes it possible to identify not only potential assembly errors, but also issues affecting both customer-supplied and ZPAS-supplied equipment before the product is delivered or installed on site. As a result, on-site commissioning proceeds according to plan and without unnecessary delays.

Electrical assembly is a dedicated area of our business, with a specialised plant and a team focused exclusively on this process. Rather than being an extension of enclosure manufacturing, it represents a distinct core capability.



► Our products and solutions

Server rooms

We are a partner, not just a cabinet supplier. We understand that data centre projects are complex, and that investors may be concerned both about underestimating future requirements and overinvesting in unnecessary capacity.

That is why we provide support from the earliest planning stages. We offer technical resources and engineering expertise, helping customers adapt facilities and design cabinet layouts together with cooling, backup power, fire suppression, and monitoring systems.

We coordinate delivery logistics and complete each project with testing, full integration, and commissioning.

We also deliver containerised data centres, including mobile solutions for locations where a traditional facility is not feasible or justified.





We take a comprehensive approach to server room projects, providing:

- concept development, detailed design, and end-to-end project delivery
- data communication and server cabinets
- primary and backup power systems
- plumbing and drainage systems
- air conditioning and ventilation
- low-current and ICT installations
- environmental monitoring
- structured cabling
- fire protection systems

► A few facts about us

■ Manufacturing in Poland

All our products are manufactured at our own plants in south-western Poland, close to the German and Czech borders and with convenient access to major transport routes.

All five locations operate within a single planning system, enabling efficient process management and workflow optimisation across the entire production chain. Whenever external support is required, we work with trusted partners from the region.



■ Stock availability

A selection of our product range, including standard catalogue items and the most frequently ordered accessories, is permanently available from stock. This enables the rapid fulfilment of repeat orders and the purchase of individual items without the need to launch made-to-order production.



■ Design flexibility and customisation

Our extensive portfolio of standard products serves as a starting point, not a limitation.

Dimensions, materials, protection ratings, internal configuration, and surface finish can all be tailored to project requirements, regardless of order size.

■ Certifications and audits

Our products are certified in accordance with the standards required by individual industries, and we undergo regular audits, both those related to certification processes and those conducted by customers, including qualification and periodic audits during ongoing cooperation. To date, we have successfully passed all of them.

FAT procedures, sometimes preceded by pre-FAT testing, are tailored to the specific requirements of each project and carried out at our own plants, often with the participation of the customer's technical team.



■ Long-term partnerships

Many of our customers have been working with us for more than 20 years. These partnerships are built on a deep understanding of mutual processes, proven communication, and consistently high quality. Long-term cooperation naturally leads to further projects, new products, and support for customer operations across multiple countries.

Our customers include:





Social responsibility

The region that shaped our company is where we live and work, and we strive to give something back.

We work primarily with local suppliers and subcontractors, while also supporting local sports clubs and cultural events.

Since 2025, we have operated the ZPASją Foundation, which pursues its own statutory objectives for the benefit of the local community.

ZPASją
FUNDACJA



The landscapes we admire every day remind us of our roots and the unique place where we live and work. Nature helps us maintain balance, gives us space to breathe, and inspires us to keep moving forward...



ZPAS manufacturing plants

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