

**For quality, environmental, energy management and occupational safety**



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## 1. Foreword by Management

As a module supplier for technically demanding assemblies and components made of high-quality thermoplastics, the PVS Group has specialised in the product areas of ventilation technology and electric motor components. We offer our customers the cooperation from the idea to series production as a service. With this concept we have gained an excellent reputation with well-known manufacturers in the fields of ventilation and electric motor technology.

This Integrated Management Manual (IMM) is intended to ensure that all activities having an impact on product quality, environmental and energy management are planned, controlled, monitored and sustainable. The manual is based on customer requirements and the standards DIN EN ISO 9001, IATF 16949, DIN EN ISO 14001 and DIN EN ISO 50001 (The standard revisions can be found in the certificates). Every employee is required to contribute to the improvement of processes with quality awareness, risk-based thinking and lean and efficient documentation.

Through market-oriented action and the promotion of innovations, we want to secure our lead in the growing international competition. The qualification, motivation and identification of our employees throughout the company is an important success factor to this end. Open and honest communication as well as socially responsible and ethically correct actions are a matter of course for us. We make our contribution to ensuring that the PVS Group remains an internationally oriented and successful company.

Our goal – with more than 42 years of experience in the field of plastic parts production – is to work with our customers at an early stage of development to find solutions to problems that are suitable for plastics and to put them into practice in subsequent production. In addition to the technical requirements of our customers, aspects of cost saving are naturally in the foreground.

At this time we employ a workforce of about 500 persons in 3-shift operation at our locations in Niedernhall - Germany, Celldömök - Hungary, Huber Heights – USA and Taicang - China, which guarantees optimal flexibility for our customers . With currently more than 122 injection moulding machines, moulded parts from 0.1 g to 8.000 g can be produced. The statistical process monitoring integrated into the manufacturing process ensures consistent quality of the individual parts and creates the prerequisites for optimum further processing of the raw parts into refined components. Of course, we also take over the assembly and the entire delivery logistics.

In order to be able to guarantee our customers optimum production cycles, we use removal robots. In addition, the company's own special mechanical engineering department ensures production know-how in series production. The PVS equipment construction with state-of-the-art machinery allows flexible responses, even to extraordinary customer requests. Here we would like to mention the consistent use of CAD/CAM technology at PVS-Kunststofftechnik and the cooperation with reliable partners.

Management and the steering committee assume overall responsibility for the Integrated Management System (IMS), in particular its effectiveness and continuous improvement.

## 2. Corporate Principles

As an important factor for sustainable success, we are committed to **Quality** in all areas and functions.

We commit ourselves to the economical handling of **Energy** resources and raw materials.

We commit ourselves to the protection of the **Environment**.

The business risks affect all of us. By identifying **Risks and opportunities** we want to identify developments that could jeopardize our continued existence at an early stage in order to initiate appropriate measures to reduce risks in good time. On the other hand, we would like to use the opportunities that present themselves to make a contribution to the development of processes and products.

In order to effectively prevent occupational accidents and health hazards, **Occupational health and safety** is very important to us.

## 2.1. Our mission

### Our values – What we stand for

Our corporate culture is based on values and principles with which we document what we expect from our customers, business partners, employees and the public.

#### Reliability & Responsibility

PVS's business partners can rely on us to play by the rules of the game in our global environment and that unfair methods of obtaining benefits are not the style of our company. We place the same trust in our business partners as our customers do in us. Trust also means that in an active customer-supplier relationship, each party actively assumes responsibility for its actions.

#### Innovation & Continuous improvement

Those who rest on their laurels run the long-term risk of being overtaken by market players. Especially valuable employees of PVS are characterized by the development of innovations and suggestions for improvement and accompany their implementation.

#### Support & Teaming

PVS promotes and demands a working environment in which smooth collaboration is possible on the basis of interest, understanding and consideration. On the other hand, it forbids competence wrangling as well as reckless and intriguing behaviour.

#### Appreciation & Respect

The way in which people deal with each other at a company is characterised considerably by the company's corporate. A tone that recognises and respects the dignity of the conversational partner as well as a familiar working atmosphere are prerequisites for good long-term relationships. However, a deliberately factual form of discussion which is open for criticism is also necessary to ensure long-term success.

### Our Vision - Where we want to go

We want to cross borders for our customers worldwide – innovations made of plastic for electric motors and ventilation technology with controllable processes.

### Our Mission - Why we do what we do

Already our founders emphasised: Questioning the status quo again and again and leaving well-trodden paths. They wrote the script for the success story of PVS plastics technology.

We do not attach importance to putting ourselves in the foreground. The proverbial "diligence of the Hohenlohe region" and our sincerity let us get up every morning and give our best for our customers and business partners. We are in love with technology and inspire our customers and ourselves again and again with innovative ideas. With our specialisation in electric motor insulation and ventilation technology, we have been developing economical plastic solutions since 1976 and making a lasting contribution to the success of our customers.

Our corporate culture is the foundation for the positive development of PVS. An important part of this culture is adherence to the values and principles that govern our dealings with customers, employees and suppliers.





### 3. Company Profile

The company PVS-Kunststofftechnik was founded in 1976 in Künzelsau in rented premises. The first parts were already electric motor components and fan wheels for the customers EBM and Ziehl-Abegg. The company grew rapidly, so that already in 1978 a production hall was built in Niedernhall (today's headquarters), which was enlarged in further construction phases to today's floorspace. In 1999, the first foreign production site was established in Hungary, followed by another location in the USA in 2004. In 2011 the branch in China was inaugurated and in 2018 a further location in China was founded in Taicang. In April 2020 it was decided to consolidate the Nanhui site with the Taicang site.

The PVS Group is one of the leading plastics processors specialising in the insulation of electric motors and the manufacture of precision fan wheels. The PVS Group is represented by companies in Germany, Hungary, the USA and China.

The following processes are available for production:

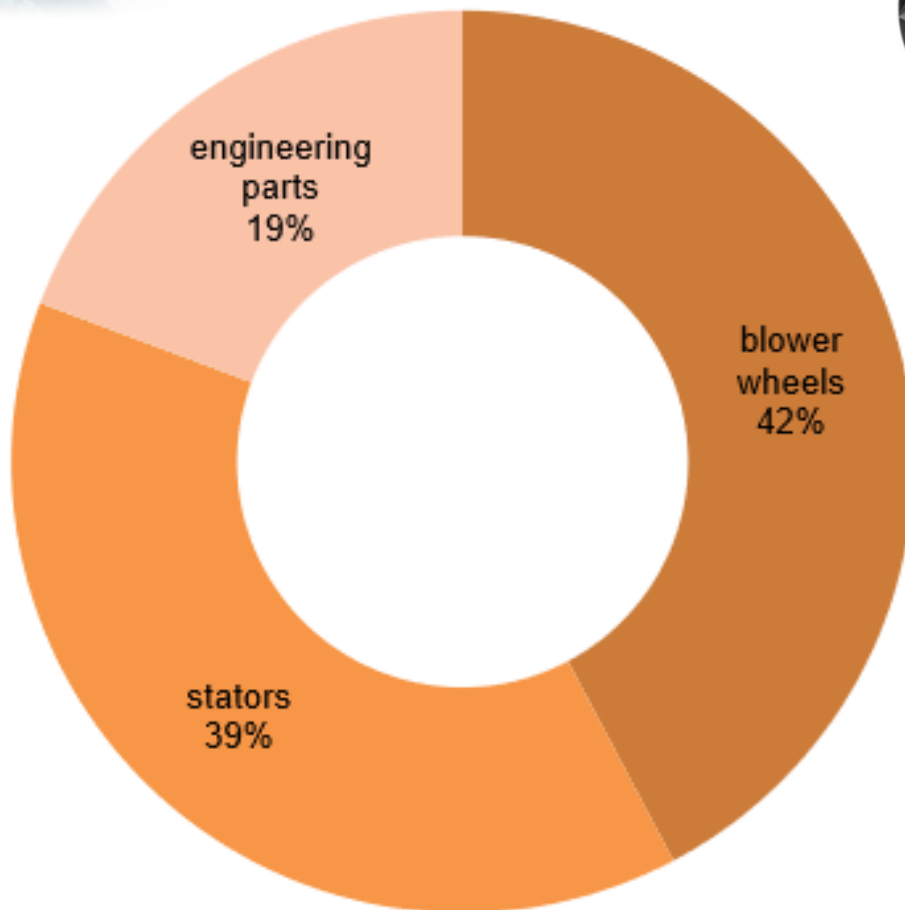
- One and two-component injection moulding processes
- Assembly manufacturing

When manufacturing and supplying our products, we aim not only to meet the requirements and expectations of our customers, but to exceed them. In addition, we maintain a fair and balanced conduct in all business relationships with long-term and solid relationships. Furthermore, we guarantee uniform processes and standards throughout the company.

The scope of the IMS is defined by the assessment of the interested parties, products and services of PVS and is in the context of the organisation. IMS is generally valid for the PVS Group. It should be noted that product development (8.3 ff) is excluded. In addition, the foreign locations have different stages regarding the requirements of DIN EN ISO 14001 and DIN EN ISO 50001 (The standard revisions can be found in the certificates).

PVS celebrated its 40th anniversary in 2016.

### 3.1. Our product ranges



## 3.2 PVS Group



#### 4. Management Policy

Our corporate culture, and thus also our management policy, is based on values and principles with which we document what we expect from our customers, business partners, employees and the public.

The management policy is defined by the management and reviewed annually to ensure its appropriateness. Targets are reviewed and set as part of the annual management review. Management is responsible for achieving these objectives and for implementing the policy.

With the elements of the quality management system in the automotive industry IATF 16949, DIN EN ISO 9001, environmental protection (DIN EN ISO 14001) and energy management (DIN EN ISO 50001) (The standard revisions can be found in the certificates) we want to meet the requirements of our customers, legislators, society, interest groups and our employees. Here it is important for us to bring economy and ecology into harmony. Only in this way can we achieve legal certainty, danger prevention, resource conservation, cost reduction, long-term competitiveness and job security.

- Safeguarding the future competitiveness of PVS in international markets is the indispensable prerequisite for maintaining our jobs. With our corporate policy and our entrepreneurial actions, we aim to invest in jobs with a secure future.
- With the management system described above in accordance with the standards and specifications mentioned, we want to be further prepared for future requirements.
- A declared goal of the company's performance is therefore the continuous improvement of the processes described in the QM system, with the aim of Total Quality Management and the resulting zero-defect strategy for our products and services. Our products and services are developed and manufactured in such an environmentally friendly and energy-efficient way as is economically possible according to the state of the art. To this end, we agree on concrete quality, safety, environmental and energy targets, which we regularly pursue.

With the introduced environmental and energy management system we commit ourselves to the continuous improvement of our environmental and energy-related performance.

All employees are requested to contribute to this in the sense of their overall responsibility for the company, for people, the environment and society as far as possible. The necessary information and

resources are made available. In particular, PVS supports the purchase of environmentally friendly and energy-efficient products and services.

Each employee of the company is obliged to apply the procedures and methods that ensure the quality and reliability of our products and services. This includes compliance with regulations on quality, occupational safety, energy efficiency and environmental protection. In addition, our employees are obliged to participate in the continuous improvement of the processes of the management system.

Management expects its superiors to promote employee initiative and to enable and motivate their employees to contribute to the continuous improvement of our products and processes through appropriate induction, training and a targeted flow of information.

Our policy is to do everything necessary to prevent injury to our own and personnel of third parties or damage to our property.

We expect our business partners to also comply with the principles of this policy.

The certification according to DIN EN ISO 9001, IATF 16949, DIN EN ISO 14001, DIN EN ISO 50001 (The standard revisions can be found in the certificates) is not a one-time award, but a continuous quality, environmental and energy efficiency assurance process that has to be proven anew every day.



## 4.1. Quality policy

### Our vision

We supply our customers with products of the highest quality. We practice quality company-wide in all processes.

### Our guidelines

- We want satisfied customers. We achieve this with products and services whose quality meets or exceeds the expectations and the customer-specific requirements of our customers.
- We see the pursuit of zero-defect quality as an obligation for every individual, from the managing director to the trainee, because the behaviour of every employee has an impact on the quality of our products and processes.
- Our policies and processes are based on international standards, customer requirements, knowledge and experience. Their knowledge and binding compliance are the basis for our quality, because non-conforming products can cause considerable risks in the supply chain. For example, recalls of goods that are already in the field ("in the field" means goods that are at the end consumer).
- Error prevention has priority over error correction. For us, quality means doing things right from the start and continuously improving our processes. Process quality reduces costs and increases competitiveness.
- Our suppliers make a significant contribution to the quality of our products and services. We therefore set the same high quality standards as we do ourselves.
- We emphasize the improvement of internal processes, which we address with our "Q-Max" suggestion system.

## 4.2. Environmental and energy policy

### Our vision

Climate change is a fact that concerns everyone. At PVS, the topics of environmental and climate protection as well as energy efficiency have a high priority at all levels of the value chain, from the supply chain to internal processes to customers. With our solutions, we want to contribute to meeting the increasing demand in a way that conserves resources. Environmental protection is therefore a core component of our sustainability approach and thus of our corporate strategy for future generations. The vision for 2025 is climate-neutral production, taking into account Scope 1 and 2 as well as Scope 3.5 and 3.6.

The collected data refer to the respective site and are defined limits of the scope for documented information of the interested parties as well as further binding obligations.

### Our guidelines

We work systematically to continuously improve our processes and structures. In doing so, we are expanding our knowledge, our competencies and our performance. Flexibility and adaptability are part of our culture and ensure our future viability. Compliance with all laws and regulations is a basic prerequisite for our actions. Open dialog with customers, authorities and the public is important to us.

On our way to a circular economy, we have identified approaches that will enable us to achieve further industrial development and more sustainable growth. In our opinion, promoting more sustainable action should become a guiding principle for business and society in general. But beyond the global issues of sustainability in general and the corresponding solutions in our "Plastics Processing" industrial sector, we have decided to do something quite pragmatic: To focus even more on sustainable processes - processes that are nevertheless economical and constructively combine aspects such as climate neutrality and profitability.

In addition, specific environmental and energy targets are formulated each year on the topics of energy efficiency, energy and environmental management. Their implementation is monitored by internal teams and regular briefings and, if necessary, training sessions are held for employees. The exchange of experience at various levels in climate and energy efficiency networks and their partner companies also contributes to this.

### 4.3. Occupational safety

#### Our vision

Prevention in occupational safety is our obligation.

All workplaces are designed to be safe, ergonomic and healthy.

#### Our guidelines

- Our goal is the continuous improvement of work safety as well as the preservation of the efficiency of our employees. Through internal / external training and instruction, we achieve the required level of knowledge and awareness of occupational safety.
- Compliance with all laws and regulations is a basic prerequisite of our actions. An open dialogue with customers, authorities and the public is important to us.
- Occupational safety is an integral part of all operational procedures and is taken into consideration from the outset.
- The managers set an example at PVS-Kunststofftechnik. They are aware of their responsibility for their employees and ensure that workplaces are designed in accordance with the requirements of the occupational safety guidelines. They carry out risk assessments, prepare the necessary instructions and ensure compliance with the specifications.
- Production facilities are planned and used in such a way that there is no risk to employees.
- All accidents and near-accidents are recorded and thoroughly investigated in order to take effective measures to prevent recurrence.
- Findings from accidents that can also occur at other sites are communicated across the company.
- Operating fluids are checked for hazards before use. Only released substances may be used.
- The suitability of the protective equipment is checked before use. Only tested protective equipment is used.



#### 4.4. Risks and opportunities

##### Our vision

The efficient management and control of risks and the identification and utilization of opportunities are part of our core business activities. Efficient management of risks and opportunities is a guarantee for the long-term success of the company.

##### Our guidelines

- Risks and opportunities are considered across all PVS locations.
- Risks are identified and addressed through a routine process.
- The aim is to minimise the occurrence of a risk by taking appropriate precautionary measures. When dealing with risks, we consider preventive, detective and reactive options, taking into account cost and risk aspects.
- The personal responsibility and sensitivity of employees is a key factor in identifying risks and opportunities.
- The requirements from customer requirements, standards, laws and norms must be considered.

## 4.5. Information security

### Our vision

We support the business processes in achieving their goals. We pursue the continuous improvement of information security.

### Our guidelines

- In order to ensure the delivery capability and adherence to delivery dates of our products, we need a stable and reliable IT infrastructure.
- We secure our competitive advantage by protecting our specific in-house know-how.
- The continuous analysis of threats and vulnerabilities helps us to initiate countermeasures in good time.
- The personal responsibility and sensitivity of employees is a key factor for information security.
- The requirements from standards, laws and norms must be considered.

#### 4.6. Scope of the quality management system

The quality management system of the PVS Group is fully valid for all locations of the PVS Group. In Germany, the scope also extends to the external warehouse.

In our process model, the central processes and site-related processes are mapped (see process model and definition).

The DIN EN ISO 9001 requirements required under 4.1 and 4.2 are depicted and implemented via the "Corporate Policy" process.

The standard requirements 8.3 of DIN EN ISO 9001 and IATF 16949 regarding to product development are excluded from the scope of application, because it's not applicable. This applies to all locations. PVS does not independently develop any products that PVS places on the market itself. PVS uses its processes to ensure that customer-specific requirements are met. PVS is not responsible for the design and PVS is not responsible for the selection of the material. Nevertheless, we advise our customers on the use of material alternatives, the application of which is the responsibility of our customers.

#### 4.7 Scope of the environmental management system

For the environmental management systems, the scope of DIN EN ISO 14001 is defined. The scope is set to the following locations:

PVS-Kunststofftechnik GmbH&Co.KG  
Salzstraße 20  
74676 Niedernhall

PVS Plastics Technology Corp.  
6290 Executive Blvd.  
Huber Heights OH 45424  
United States

All foreign sites, regardless of their status for certification, are required to adhere to this integrated management manual, taking into account the respective legal and official requirements.

#### 4.8 Scope of the energy management system

For the energy management systems, the scope of DIN EN ISO 50001 is defined to the Niedernhall site.

PVS-Kunststofftechnik GmbH&Co.KG  
Salzstraße 20  
74676 Niedernhall

All foreign sites, regardless of their status for certification, are required to adhere to this integrated management manual, taking into account the respective legal and official requirements.

#### 4.9 Quality management system for international locations

The defined PVS central processes apply to all international locations. In addition, each foreign location has its own site-related processes as well as work instructions and specification documents. These site-related processes also take into account the respective legal and official requirements of the respective countries.

The scope of application refers to the products described on page 10. The purpose of the company is the insulation of electric motors, the manufacture of precision impellers and, in addition, technically sophisticated products. Whereby "sophisticated" refers to the geometry and the high precision as well as complex tool concepts.

## 5. Customer Orientation

The company is significantly oriented towards customer benefit and internal requirements. The design of our processes on the basis of the prevailing process landscape was derived from this. Particularly in the early concept phase of process and product design (without development), it is essential for us to consider the customer's ideas and wishes and to actively contribute our decades of experience. An efficient product and process design is thus achieved. Through customer surveys and customer feedback, we regularly determine the fulfilment of customer requirements and expectations for our own products and the competition. We derive the necessary improvements from the results.

Further information regarding the customer's representatives can be found in work instruction 01\_GF\_AA\_001.

## 6. Process Orientation

PVS's document and process management is handled via the Sycat system. This includes all new creations, changes and the deletion of existing content. The currently valid version of all documents and processes can be found online.

### 6.1. Process overview

The processes applicable at all locations are defined in the PVS Group's process model on the basis of the applicable standards. The structure of the business processes and the interaction of the individual sub-processes are thus described. On the first level, the management processes are listed to which sub-processes are assigned on further levels. The same applies to the core processes and the supporting processes. Central processes are represented transparently in the process landscape (red frame). Further documents are assigned to the respective process. These include, for example, process descriptions, standards, work instructions, test instructions and the associated specification and verification documents. Where central functions are available for valid processes, this is indicated in colour in the corresponding process descriptions.

### 6.2. Management processes

Management processes guide the core processes to achieve the company's goals and include activities for planning, implementation, monitoring and improvement. These are the human resources, corporate management and management system processes.

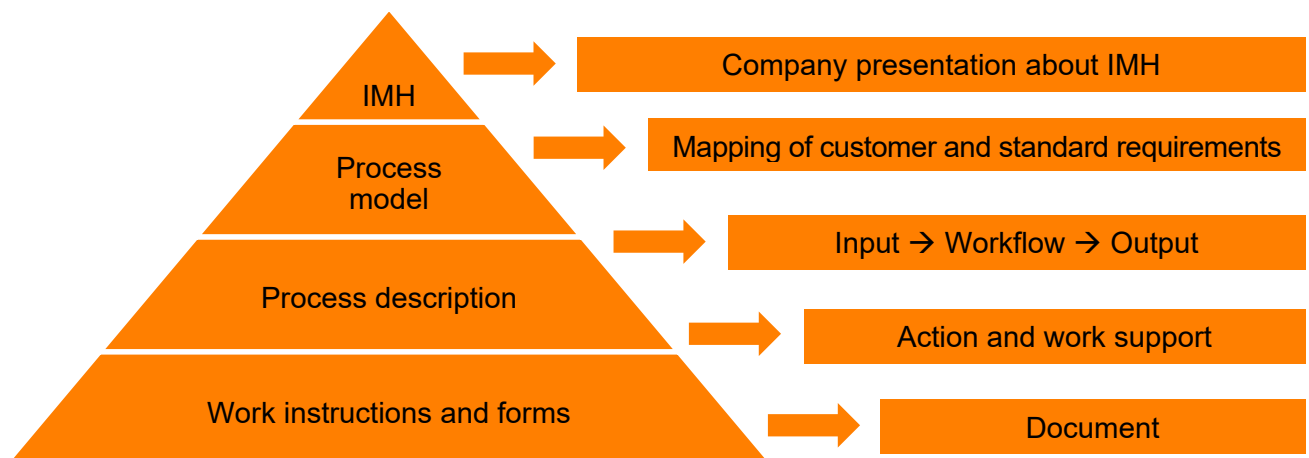
### 6.3. Core processes

Our core processes are a sequence of logically related activities that contribute to value creation for the company, have a defined beginning and a defined end, are repeated and aligned with to customer requirements, e.g. sales, project management, order centre, resources, manufacturing or logistics.

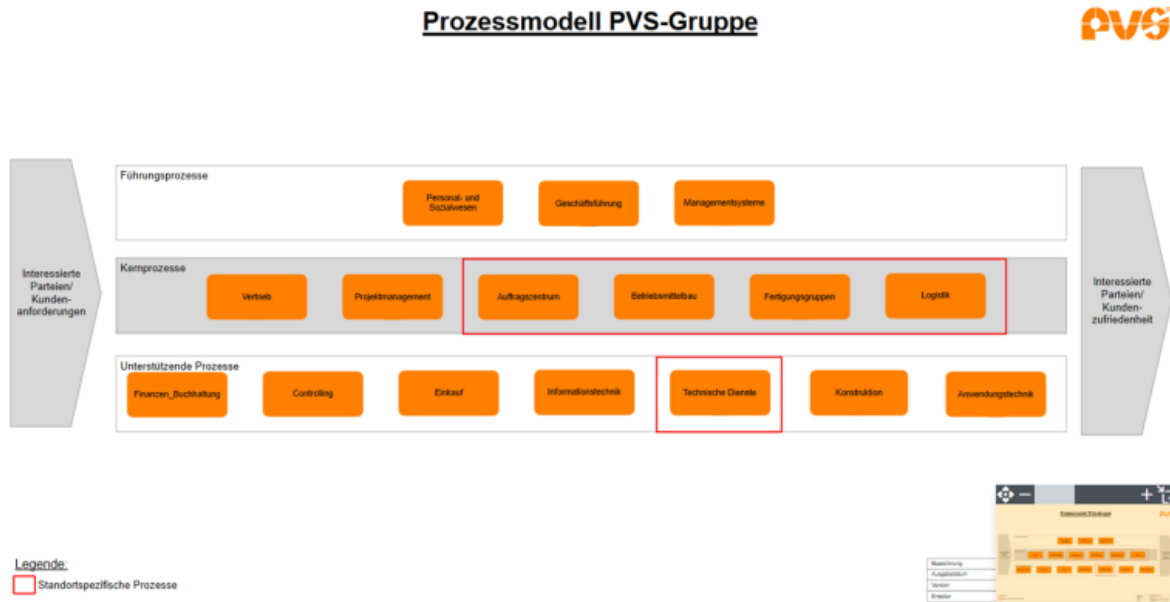
### 6.4. Support processes

These processes support the management and core processes for the effective provision of services for the customer, e.g. finance/accounting, controlling, purchasing, information technology and technical services.

### 6.5. Document structure



## 6.6. Process model



## 7. PVS project management

PVS project management describes the methodology with which projects are handled. PVS project management can take on different scopes for individual project types. Projects are therefore categorised accordingly at the outset. In principle, projects are divided into phases and delimited by milestones.

In PVS project management, the organisation is described with the roles (tasks, powers, responsibilities) of the project participants as well as the procedure for project handling in the individual phases. The project is planned and implemented on the basis of the project order. Resource planning and risk management as well as change management are taken into account.

Projects are monitored by their maturity level in appropriate control committees. The escalation of deviations from the targets is described. Key project results are recorded at project completion and made available as lessons learned for further use in the organisation. The benefit of the project is also ensured after the end of the project.

## 8. Quality Management

Through systematic and timely planning of all activities, everything is done preventively to meet our own and the customer's requirements for products, projects and contracts. It is our goal to achieve zero-defect quality and thus to guarantee a maximum of customer satisfaction.

We fulfil the requirements with the certification according to IATF 16949. In addition, the requirements of the product-specific specifications and customer-specific regulations are implemented.

The effectiveness of the quality management system is regularly assessed and improved by audits. Quality-relevant specifications and processes are documented. Managers are obliged to make the relevant documents available to their employees and to inform them of the content.

Internal communication takes place through goal-oriented meetings, group and project work as well as through the use of modern telecommunication facilities and the Intranet. All activities are always aimed preventively at avoiding errors in the processes. With the test equipment management we ensure the consistent recording and monitoring of all quality-relevant test and measuring systems according to defined procedures. Only suitable and calibrated testing and measuring systems are used, according to the testing task. We continuously strengthen and promote the personal responsibility of our employees for quality-conscious behaviour through information and training. To implement this, we make use of the further training offered by PVS Kunststofftechnik.



## 9. Environmental and Energy Management

Environmental and energy management are an important cornerstone for achieving our Vision 2025 "CO2 Neutral Production" and take on a special significance. Comprehensive environmental protection, economical use of energy sources, the high quality of our products and the efficient use of resources contribute to securing the company and its jobs.

Taking into account the collected figures, data and facts in our CO2 balance, environmental and energy targets are derived. These are drawn up and reviewed by the environmental and energy team and evaluated in the annual management review. The measures for achieving the targets are summarized in the action plans.

We regard environmental protection as an important management task. Responsibilities are clearly defined. Employees are regularly informed about our company's environmental and energy measures. As part of their work, they are encouraged to take personal responsibility and to behave in an environmentally conscious and energy-efficient manner in the workplace.

The certification of our environmental management system according to DIN EN ISO 14001 and our energy management system according to DIN EN ISO 50001 (the standard revisions can be found in the certificates) by an accredited certification company is proof of our commitment.

## 10. Risk Management

The risks are identified, analysed and assessed using defined procedures and rules in the risk management system. If necessary, measures to prevent or reduce risks are derived. Risk assessment is part of every process description, which ensures the conformity of our products. Risk aspects such as customer and market risks, technological risks, production risks, quality risks, procurement risks, financial risks, personnel risks, information security risks and compliance risks are considered.



## 11. Staff

The management has appointed persons with special organisational, management and personnel responsibilities, such as superiors for quality, environment, occupational safety and information security. Job and task descriptions define the basic qualification requirements, tasks and responsibilities of all affected employees. Established training management ensures that these individuals are competent on the basis of appropriate education, training or experience. Special specialist knowledge is documented by the department superiors within the framework of the qualification matrix.

## 12. Resources

The financial, technical and personnel resources required for customer-oriented service provision are planned and provided. The selection and integration of new employees is carried out on the basis of described requirements. The respective manager ensures a target-oriented induction. Every employee has the opportunity to receive training and further education in order to further develop their qualifications. For this purpose, the managers regularly determine the need for qualification and initiate the necessary measures. The effectiveness of qualification measures is assessed.

In addition to the infrastructural requirements with regard to workplaces and process equipment, PVS plastic technology provides the necessary framework conditions for economic and stable processes through the design principles of the PVS production system.

## 13. Sustainability

Sustainability has always been a basic principle of entrepreneurial action at PVS-Kunststofftechnik. It considers the economic, ecological and social dimensions, the aspects of which are treated equally. This means that we place great value in our business activities on ensuring that economic returns always go hand in hand with environmental protection and social justice.

## 14. Management

In this process, we develop a market strategy based on the fundamental corporate goals, market-oriented requirements and research and innovation findings. We then develop the product strategy. This is the basic requirement for the process development of new products.

## 15. Consultation, Inquiry and Order Processing

Through sales and process development, we make our consulting expertise available to our customers. On request and on the basis of the data provided to us, we project technological and economic solutions according to the state of the art, the results of which we present to our customers. A feasibility study is carried out as part of the enquiry and contract review process. Through our order processing, on-time delivery is controlled and coordinated with the customer.

## 16. Product and Process Development

**(product development only in the sense of plastic-compatible design,  
PVS has no design responsibility)**

We offer our customers well-founded project management with competent support and on-schedule, qualitative and cost-optimised handling of product and process development.

Product and process development is based on our professional PVS project management. The specific requirements of IATF 16949, "Quality Assurance in the Process Landscape" and customer-specific regulations, are observed.

Customer requirements are recorded and documented in the specifications. The project manager is responsible for the transfer into project planning as well as for the subsequent realization together with the project team. During product realization and adaptation of the manufacturing processes for new or modified components, all activities of product and quality advance planning are documented. The project manager is also responsible for the documentation of the course of the project, the technical data developed, the final report and the results of verification and validation.

New products are sampled and released according to customer requirements. The scope of development refers to the development of the applied production processes and procedures. PVS-Kunststofftechnik excludes 8.3 of ISO 9001. This does not affect standard requirement 8.3.5.2 of IATF 16949.

## 17. Procurement

Within the framework of the PVS procurement process, suppliers are selected, qualified and periodically assessed in the categories quality, environment, energy management, delivery reliability and service under the responsibility of strategic purchasing. New or modified production materials are subject to a sampling process. The order is placed as part of our procurement process with precise procurement documents. Incoming deliveries are checked for compliance with the technical and environmentally relevant specifications in random samples during the incoming goods inspection. Deviations will be objected to by means of an 8D report and a request for comments. Quality target agreements are concluded with relevant suppliers. We promote the supplier/customer relationship and develop it further in accordance with our high understanding of quality.

## 18. Operating Resources

The PVS production equipment construction department ensures that production is supplied on schedule with the tools and equipment necessary for manufacturing the products. PVS provides all resources for the development, manufacture, procurement and provision of tools and equipment.

## 19. Production

Within the framework of production planning, all production materials, tools, fixtures, testing equipment and working documents required for the manufacture of the products are planned and ordered in compliance with applicable regulations and customer requirements. All work documents required for production are made available at the respective workplace.

Our manufacturing processes and procedures are based on many years of experience and documented technical process competence. Production processes are assessed with regard to their ability to provide services in series production. The processes are systematically monitored and continuously improved.

## 20. Testing Processes

In order to ensure product quality, tests are established in all phases of the manufacturing process, starting with the incoming goods inspection, through production, to the final inspection and shipping, in order to meet zero-defect quality. First and last part tests as well as tests during production and capability tests are planned and carried out. The test results are documented and archived. Only capable measuring instruments that are subject to test equipment monitoring are used. These are calibrated according to DAKKS or manufacturer-specific methods.

## 21. Shipping, Logistics

We create transparency for medium to long-term capacity issues and generate a comprehensive overview of the current and future capacity situation with the aim of rapid information, timely reaction and optimum capacity utilisation of our existing and planned plants.

Only products whose quality has been ensured by suitable measures are stored. All products are identifiable and controlled according to the FiFo principle through a labelling system, warehouse and management system. Unless otherwise specified by the customer, standard packaging shall be used. The traceability of the lots is designed in such a way that a clear allocation from the delivery data to the production and inspection lots is guaranteed.

## 22. Maintenance

Through a central organisation of maintenance, we ensure the sustainable availability of all PVS Group plants. Preventive and condition-oriented maintenance of production and measuring equipment guarantees the suitability and high availability of production.

### 23. Emergency Planning

PVS-Kunststofftechnik has drawn up emergency plans for possible events. These describe procedures and ensure a rapid reaction to, for example, floods, equipment failures, fire alarm systems, machine failures, employee failures, product recalls, IT failures and oil spills. As part of the risk assessment, hazard analyses are carried out and - where necessary - processes are mitigated, instructions drawn up and employees instructed.

### 24. Management Review

The effectiveness of the management system and the achievement of objectives with regard to process performance, environmental and energy performance, product conformity and feedback from customers are regularly reviewed by the management of PVS-Kunststofftechnik GmbH & Co. KG was valued. The findings from audits, legal obligations and recommendations for improvements are taken into account as well as the status of preventive and corrective actions. The documented result describes the action required to improve (change) the effectiveness of the management system and its processes, the improvement of products and services in relation to customer requirements and future requirements and expectations.

For example, they are:

- Resource requirements
- Improve (change) energy performance, energy policy, energy performance indicators, strategic and operational objectives and other elements of the energy management system in accordance with the organisation's commitment to continuous improvement
- Implications for the strategic direction of the organisation (if applicable)
- Conclusions on the continuing suitability, adequacy and effectiveness of the management system

The management evaluation is part of the long-term planning of the company.

## 25. Continuous Improvement Process

The PVS production system promotes the expansion of the strategic thrust "process excellence" by designing effective and efficient processes and by establishing process optimization as part of the corporate culture. The vision of PVS derived from this is as follows: We want to cross borders for our customers worldwide – innovations made of plastic for electric motors and ventilation technology with controllable processes.

In a holistic approach, we strive for the continuous and sustainable improvement of all company processes and areas with our production system - both in production and in administrative areas - and make these as waste-free as possible. Quality methods such as structured problem solving and Poka Yoke also play an important role in the improvement of all our processes.

Here we rely on the participation of all employees. For example, in the company suggestion scheme (Q-Max), which exists at all PVS Group locations and thus gives every employee the opportunity to participate in improving the company with their own ideas and initiatives. All employees are thus constantly working together to improve the effectiveness of management systems, product quality, productivity and customer satisfaction.

The continuous improvement process is supported by the methodology of the PDCA cycle. This describes the four-stage control loop of the Continuous Improvement Process (CIP). The phases are: Plan, Do, Check, Act. We apply this methodology throughout the company. We thus continuously improve both production processes and administrative processes. The strategic goals of the company are also monitored in this way and their efficiency is checked. Diagram of the PDCA cycle:





Die 4 Phasen des PDCA-Zyklus  
Quelle: Kudernatsch, München

PDCA- Zyklus zur kontinuierlichen Verbesserung



Abfolge des PDCA-Zyklus zum Aufrechterhalten und Verbessern von Prozessen in der Fertigung und Organisation

