



## Integrated Management Manual of

### **VACUUMSCHMELZE GmbH & Co. KG**

Headquarter and production sites in  
Germany  
63450 Hanau, Grüner Weg 37  
63450 Hanau, Ehrichstraße 5  
63450 Hanau, Willy-Brandt-Straße 23

**VACUUMSCHMELZE (M) Sdn. Bhd.**  
with production site  
Lot 3465 Tanah Putih, Pahang Darul  
Makmur, MAL-26600 Pekan (Malaysia)

### **VACUUMSCHMELZE, s.r.o.**

with production site  
Horná Streda 1325/14  
SK-916 24 Horná Streda (Slovakia)

**VACUUMSCHMELZE China Magnetics  
(Shenyang) Co., Ltd.**  
with production site  
No. 15-10, Hunnan East Road, Hunnan  
NNew District, Shenyang, P.R.  
China 110169

**e-VAC Magnetics**  
with production site  
840 Sagawa Dr.  
29153 Sumter, SC  
USA

## Companies of VAC Group

<http://www.vacuumschmelze.com>

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<b>Release</b>	<b>Name</b>	<b>Signature</b>	<b>Date</b>
VAC Hanau: CEO (Chief Executive Officer)	Dr. Erik Eschen	sgd. Dr. Eschen	13.08.2024
VAC Hanau: Representative for quality	Matthias Reidel	sgd. Reidel	13.08.2024
VAC Hanau: Director EHS	Sascha Fuchs	sgd. Fuchs	13.08.2024
VAC Hanau: Representative For energy management	Patricia Borgwardt	sgd. Borgwardt	13.08.2024

VACUUMSCHMELZE (VAC) is a global leader in the field of advanced magnetic materials and related products. By implementing our in-depth technical know-how, we achieve continuous innovation.

**Hanau** (Germany)

Our headquarters and major production plant are based in Hanau. All important activities are coordinated here, all alloys melted and further processed. VAC also has production plants in:

- Horná Streda** (Slovakia)
- Pekan** (Malaysia)
- Shenyang** (China)
- Sumter** (USA)

Cross-unit tasks are managed by central departments (see Organization chart in [enclosure 2](#)). The chart below gives an overview of the production facilities. [Enclosure 4](#) lists the production/ supply / waste management plants with higher environmental relevance for the individual production sites.

Further information about VACUUMSCHMELZE are indicated in the Internet under

<http://www.vacuumschmelze.com>

All certificates on VAC's Integrated Management System can be called up there.

Value chain	Production sites of the business units of VAC (see <a href="#">enclosure 4</a> )				
	Hanau	Horná Streda	Pekan	Shenyang	Sumter
<b>Rapid Solidification</b> Rapid solidified semi-finished products, magnetic cores and components	● <sup>1) 2)</sup>	●	●	●	—
<b>Crystalline</b> crystalline semi-finished products, parts, current sensors	● <sup>1)</sup>	●	●	●	—
<b>Permanent magnets</b> Permanent magnets and assemblies	● <sup>1) 3)</sup>	●	—	—	●

1): Production site Grüner Weg 37

2): Production site Ehrichstraße 5

3): Production site Willy-Brandt-Straße 23

## Application Field

Our Integrated Management system covers:

- the relevant internal and external issues together with the requirements of interested parties (e.g. customer specific requirements)
- legal and official or local authority requirements
- requirements of the following rules and regulations

Sector	Standard	Explanations
Quality	ISO 9001	Branch independent standard
	IATF 16949	Additional requirements of automotive industry
	EN 9100	Additional requirements of aviation / space and defence industry
Environment	ISO 14001	
<i>Energy</i>	<i>ISO 50001</i>	only VAC Hanau
Health and safety	ISO 45001	

The field of application covers the requirements on the design, manufacturing and distribution of special materials, in particular those with magnetic properties and value added products:

- Rapid Solidification (rapid solidified semi-finished products, magnetic cores and components)
- Crystalline (crystalline semi-finished products, parts, current sensors)
- Permanent magnets (permanent magnets and assemblies)

## Scope

Our Integrated Management System covers our entire workforce at all VAC Facilities (see front page) and all devices and equipment with property VAC.

*Requirements of ISO 50001 on an Energy Management System are currently only being implemented in Hanau. The relevant passages in the text are in green.*

*At the same location of VACUUMSCHMELZE GmbH & Co. KG following other companies are located:*

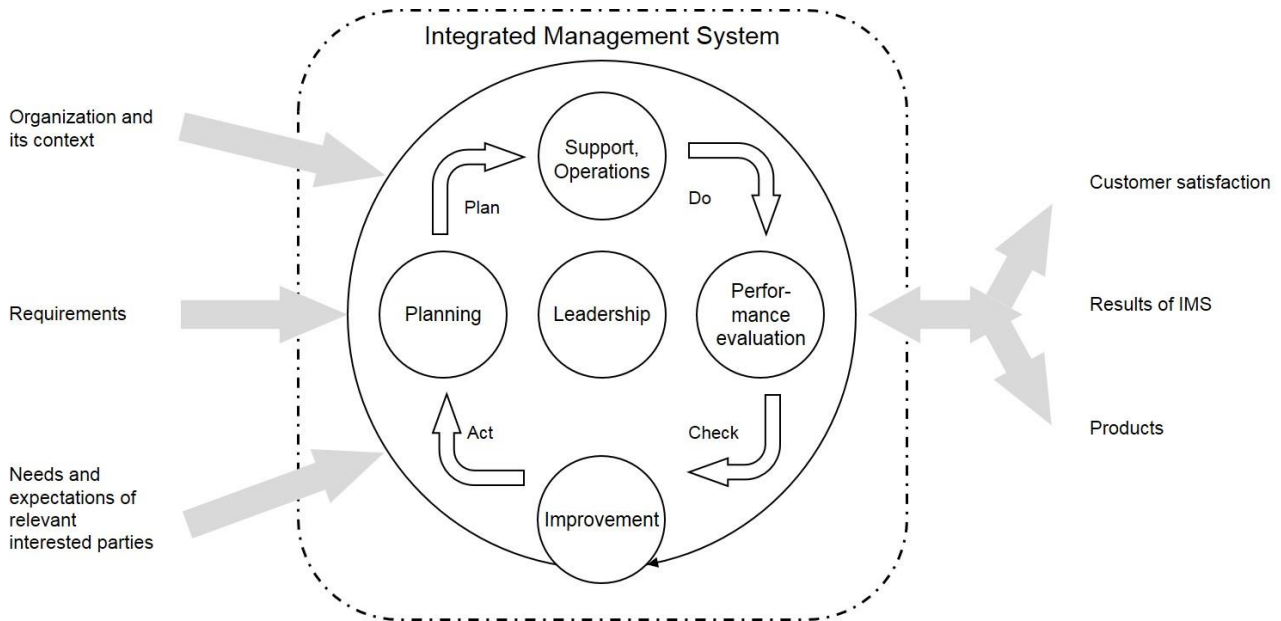
- VAC Germany Holding GmbH
- OMG Germany Subsidiary Holding GmbH
- VAC Beteiligungs-GmbH
- VAC Germany GmbH
- VAC Finanzierung GmbH
- VAC Participation GmbH
- VAC International Holding GmbH
- VAC Grundstücksverwaltung KG
- Ara VAC BidCo GmbH
- Ara VAC MidCo GmbH
- Ara VAC TopCo GmbH

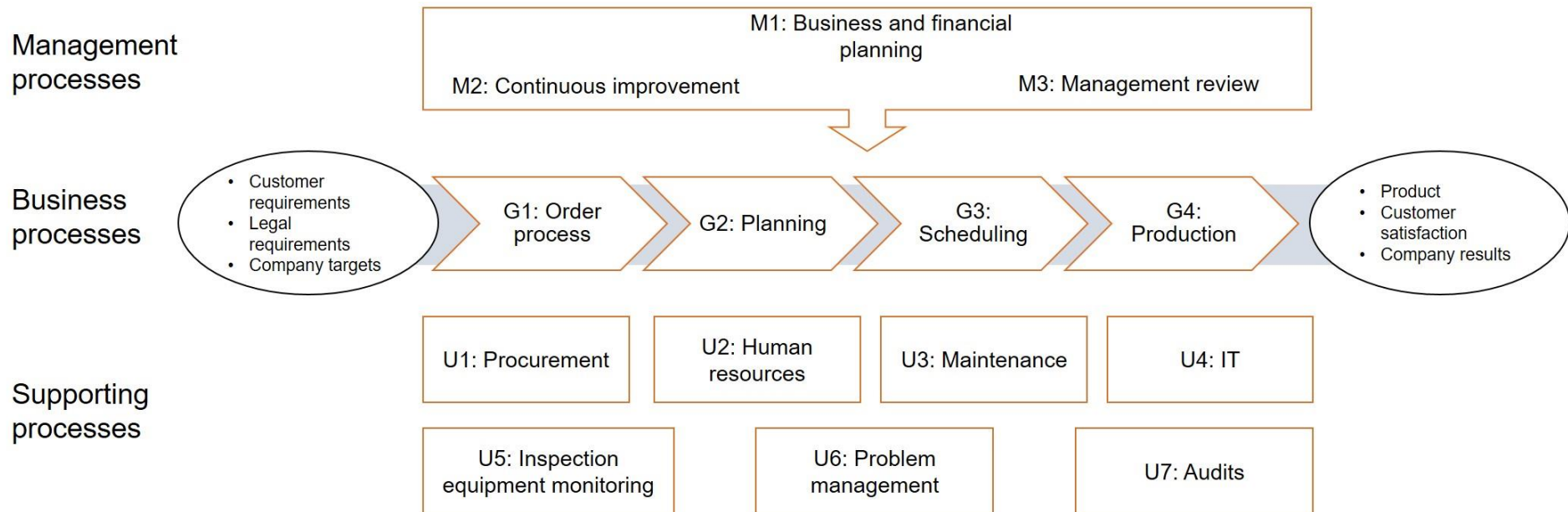
*While VAC Grundstücksverwaltung KG is the owner of the Hanau site, the other companies have no operational functions and are located at the same address as VACUUMSCHMELZE GmbH & Co. KG in Grüner Weg 37, D-63450 Hanau. They have no separate / additional energy consumption. The energy consumptions incurs completely at VACUUMSCHMELZE GmbH & Co. KG.*

VAC runs a process oriented Integrated Management System - as described - that meets the standards listed in [chapter 2](#) with regard to **quality, environment, energy as well as health and safety**.

The structure / process landscape of VAC's Integrated Management System depicts the on-going processes in the company.

The inherent structure of our IMS aims at continuous improvement in accordance with PDCA – cycles.





The management processes underline the clearly defined structure of our company. To achieve this targets are set, their realization systematically monitored in management evaluation and appropriate measures taken to attain the goals. Communication within the company and continual improvement have high priority.

### **Business and financial planning**

On the basis of long-term planning operative targets are broken down. They are then checked at regular intervals. If deviations arise, the causes are identified and measures taken to ensure the targets are realized.

### **Continuous improvement**

By continuously improving our products and processes we strive to keep our company in line with the market, to improve customer satisfaction and our environmental and energy performance. Our in-company Suggestion Scheme offers our workforce an opportunity to propose improvements.

### **Management review**

Within the framework of regular management assessment, the direction and effectivity of the Integrated Management System are evaluated on the basis of different factors (e.g. results of audits, key figures) and where necessary measures introduced to further improve the system.

The business processes cover the acquisition, development and production of our products together with delivery to customers.

### **Order process**

Within the framework of the order process new customer enquiries are assessed and checked. The aim being to assess the production feasibility of new customer enquiries and to process the information for the upcoming development task.

Repeat orders are checked thoroughly and subsequently forwarded to production.

### **Planning**

During planning basic research leads to the development of applications with a promising future and where appropriate opens up new markets.

In the course of product development previously clarified new customer enquiries (see Order process) and specifications are converted into feasible products and forwarded to production.

While projects are in the process development phase production processes are improved or new production technologies introduced in the company.

### **Scheduling**

Verified repeat orders (for existing products) are forwarded to Scheduling. According to schedule production orders are drawn up, the raw / pre-materials ordered and made available.

### **Production**

The individual process steps of the scheduled production orders are worked through producing value-added products from raw / pre-materials. Finally, the products are safely packed and despatched in accordance with customer requirements.



Support procedures are processes with service characteristics. These processes are provided to ensure that management and business processes run smoothly.

### **Purchasing**

Bought-in parts / services as specified within the framework of development are only purchased from qualified suppliers. New materials / services are approved for series production via an established release procedure. At regular intervals the quality and delivery reliability of suppliers is assessed using an index grading system.

### **Human resources**

In order to realize all processes suitably qualified personnel is required. The aim of the staffing process is to have the right number of competent staff available for each procedure. Moreover, to maintain and enhance the competence of our staff seminars are planned and their effectivity reviewed.

### **Maintenance**

Realistic order planning means the required machines and plants must be available. In order to achieve this, maintenance plans are drawn up and put into practice. Preventive and pre-emptive maintenance ensures that the machines and plants are available.

### **IT**

An IT–infrastructure is required to implement all these processes. The provision and availability of the infrastructure is ensured by the IT processes.

### **Problem management**

If any deviations in the products are discovered within the framework of the incoming goods inspection, intermediate and / or final inspection or at the customers', these are to be analysed in compliance with the appropriate standardized process and measures taken.

### **Inspection equipment monitoring**

Inspection equipment is required to carry out inspections. To ensure that the equipment produces reliable results for each task it is monitored and routinely calibrated.

### **Audits**

Audits (product, process, system) are carried out to verify processes and products. The aim is to determine the effectivity of a process and to ascertain where improvements are necessary.

Process	Hanau Grüner Weg	Hanau Ehrichstraße	Hanau Willy-Brandt-Str.	Horna Streda	Pekan Lot 3464	Pekan Lot 3023	Kuantan Lot 2726	Shenyang	Sumter
Business and financial planning	●			●	●			●	●
CIP	●	●		●	●			●	●
Management review	●			●	●			●	●
Order process	●			●					●
Planning	●	●		●	● <sup>1)</sup>			● <sup>1)</sup>	●
Scheduling	●	●		●	●			●	●
Production	●	●	●	●	●	●	●	●	●
Procurement	●			●	●			●	●
Human resources	●			●	●			●	●
Maintenance	●			●	●			●	●
IT	●			●	●			●	●
Control of inspection equipment	●			●	●			●	●
Problem management	●	●		●	●			●	●
Audits	●			●	●			●	●

<sup>1)</sup> only process development

Locations supported by:

	Calibration	Continuous Improvement	Contract review	Customer service	Distribution	Facilities management	Finance	Human resources	Information technologies	Internal Audit manag.	Laboratory	Logistics	Maintenance	Management Review	Policy making	Process design	Product design	Purchasing	QMS	Sales	Strategic planning	Supplier management	Testing	Warehousing	Warranty management
Hanau Grüner Weg	-	3)	3)	-	-	-	3)	-	-	-	3)	-	-	-	-	-	-	3)	-	-	-	3)	3) 6)	-	-
Hanau Ehrichstraße	1)	3)	1)	1)	1)	1)	1)	1)	1)	1)	1)	1)	1)	1)	1)	1)	1)	1)	1)	-	1)	1)	1)	1)	1)
Horna Streda	1)	-	1)	1)	1)	-	1)	1)	1)	1)	1)	-	-	-	1)	1)	1)	1)	1)	1)	1)	1) 4) 6)	6)	-	1)
Pekan Lot 3464	1)	3)	1) 3)	1) 3)	1) 5)	-	1) 3)	1)	1)	1)	1) 3)	1) 3)	-	-	1)	1) 3)	1) 3)	1) 3)	1)	-	1)	1) 3) 6)	5) 6)	5)	1) 3)
Kuantan Lot 2726	1)	4)	-	-	-	4)	-	4)	4)	1) 4)	-	1)	-	-	1)	-	-	-	1)	-	-	-	-	-	-
Shenyang	1)	3)	1) 3)	1) 3)	1)	-	1) 3)	1)	1)	1)	1) 3)	1) 3)	-	-	1)	1) 3)	1) 3)	1) 3)	1)	-	1)	1) 3) 4)	3)	-	1) 3)
Sumter	-	-	1)	-	-	-	-	-	-	1)	-	-	-	-	1)	1)	1)	-	1)	-	-	-	-	-	-

Hanau Grüner Weg <sup>1)</sup>

Hanau Ehrichstraße <sup>2)</sup>

Horna Streda <sup>3)</sup>

Pekan Lot 3464 <sup>4)</sup>

Kuantan Lot 2726 <sup>5)</sup>

Shenyang <sup>6)</sup>

Sumter <sup>7)</sup>

Hanau Willy-Brandt-Straße + Pekan Lot 3023: extended manufacturing site: relevant support via locations Hanau Grüner Weg and Pekan Lot 3464

Definition of supporting functions:

After Sales:

n.a. ; Activities described in Warranty management

Calibration:

Calibration of measurement equipment, preparation of calibration instructions for measuring instruments

Continuous Improvement:

Improvement projects within a location, monitoring and controlling of the planned ratio activities

Contract Review:

Review of contracts according to CPE 12 and supply contracts for series production / blanket orders

Customer Service:

Quotation preparation for serial products, order entry for serial products, customer satisfaction analysis

Distribution:

Final packaging and shipping of finished products to the customer, packaging and transport specifications

Engineering:

n.a., see Process design

Facilities Management:

Planning of construction activities and repair of buildings and infrastructure

Finance:

Financial planning and reporting / monitoring

Human resources:

Budget planning, personnel management, training

Information technologies:

Provision of the IT infrastructure

Internal Audit Management:

Internal audits

Laboratory:

Inspections during production, inspections within the scope of requalification and complaints, inspections within the scope of product development

Logistics:

Order Management, production planning, disposition

Maintenance:

Implementation of planned maintenance activities

Management Review:

Conducting a full management review for another location

Marketing:

n.a., see Customer service

Packaging:

n.a., Pre-packing takes place at the production site, for more see shipping

Policy Making:

Specification of the management policy

Process Design:

Development / construction of new processes / plants

Product Design:

Development / design of new products

Production Equipment Development:

n.a., see Process Design

Purchasing:

Specification of strategy and goals, procurement of materials and services

Quality System Management:

Planning, creation and maintenance of the QMS

R&D:

Advanced development / research. Influence only indirectly on other locations. Direct support via product development and production process development

Repair:

n.a., no repairs are carried out on delivered series products.

Sales:

Acquisition

Sequencing:

n.a., see Logistics

Servicing:

n.a., no service work is carried out on delivered series products.

Strategic Planning:

Definition of strategy and goals

Supplier Management:

Supplier qualification, supplier development

Testing:

Planned inspections (incoming goods, intermediate and final inspections), **First article inspection of purchased materials**

Training:

n.a., see Human resources

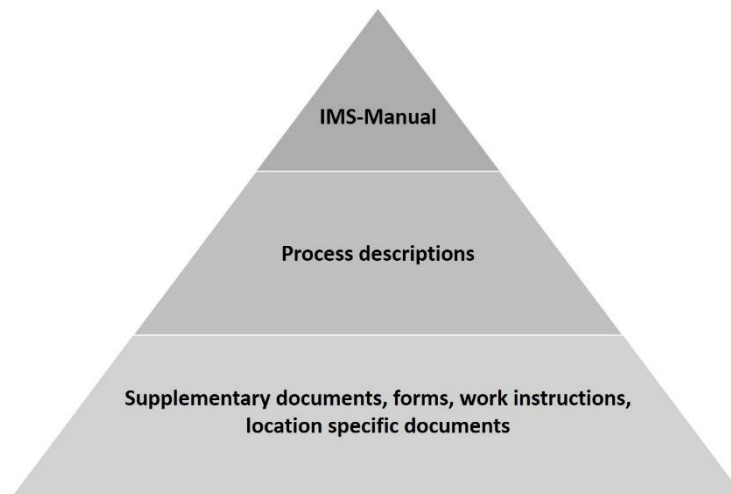
Warehousing:

Storage of raw materials / pre-materials as well as finished products

Warranty Management:

Support in the handling of complaints and commercial activities

The documentation of the Integrated Management System is divided into 3 levels:



### 1. **Integrated Management Manual**

Content: Principles of our Integrated Management System together with a brief description of the contents.

Release: The release is effected by CEO as well as by the representatives for quality, environment / safety and energy

Changes: Changes to this manual may refer to individual chapters.

Availability: The Management Handbook is available for both in-company and external persons. There is no modification service for external persons.

### 2. **Process descriptions and Central Process Elements**

Content: Description of processes, responsibilities and interfaces of processes as well as methods and procedures

Release / changes: The release and changes are effected by the process managers, QM and EHS.

Availability: Second level documents are solely for in-company use

### 3. **Supplementary documents, forms, work instructions, location specific documents**

Content: Details / procedures to supplement the Process descriptions

Release / changes: The release and changes are effected by the process managers, QM and EHS.

Availability: Second level documents are solely for in-company use



The general principle of VACUUMSCHMELZE is the basis of our strategy and management policy. We identify and consider the relevant requirements of our interested parties as well as internal requirements of our company.

VACUUMSCHMELZE is committed to complying with all **compliance obligations (e.g. laws, regulations, authorisation)** and the highest standards of integrity and ethics, as expressed in our VAC Code of Conduct and Ethics.

The **Health and Safety** of our employees and our partners is a fundamental target when we structure our products, processes and workplace. We comply with applicable laws, standards and guidelines as well as recognized industrial medicine and ergonomic practices.

We are committed to protecting our **Environment** and to the **sustainable** management of natural resources. Our endeavor is to exceed applicable regulations in order to avoid ecological damage or to reduce it to a minimum. The basis for the safe operation of our plants (plant safety) is preventive maintenance as well as plant-related preparedness and emergency planning.

The manufacturing of our products is accompanied by high energy consumption. We are aware of the associated social responsibility and we use **Energy** efficiently. We also commit ourselves to improve our energy performance **and the associated carbon footprint** in the long term. Our activities therefore also have a sustainable impact on future generations.

For us **Quality** is what it takes to register our customer's requirements early, to meet them with exceptional service, and to honor all our agreements with them in full. Our activities are focused on the customer and on increasing customer satisfaction.

For the implementation of these targets under optimum economic conditions we have introduced a comprehensively integrated management system, which complies with the requirements of the following standards/guidelines:

**DIN EN ISO 9001**  
**IATF 16949**  
**EN 9100**  
**ISO 14001**  
**EN 16247 / DIN EN ISO 50001\***  
**ISO 45001**  
\* only VAC Hanau

The relevant management documentation is a binding working basis for all managers and employees of the corporation.

Based on the definition and evaluation of appropriate benchmarks and targets we concentrate on continual improvement of the defined management system.

The comprehensiveness and efficiency of our management system is regularly audited and optimized by independent internal and external auditors.

In addition to the guidelines in our integrated management system we comply within our social responsibility with the principles of the **UN Global Compact Initiative**, which essentially relate to human rights protection, collective bargaining rights, the abolition of forced and child labor, the elimination of discrimination in employment and occupation, responsibility for the environment, and the prevention of corruption ([www.unglobalcompact.org](http://www.unglobalcompact.org)).

28.03.2023  
Executive Management (CEO) of VAC HU  
Dr. Erik Eschen



In accordance with its management policy the global operating company VACUUMSCHMELZE GmbH & Co. KG has defined the following guidelines, which apply to employees at all locations:

- ◆ Within the framework of a comprehensive and efficient management system we fulfill the statutory and customer-related requirements regarding quality, energy, environmental protection and health and safety, plant safety as well as **information security**.
- ◆ Awareness of quality, the environment, energy, plant safety, health and safety and **information security** in the workplace is part of each and every employee's assignments. One of the on-going duties of the management is the establishing of an essential knowledge and the appropriate sense of responsibilities on all levels.
- ◆ In order to be leaders in technical progress we continually work on improving our products and processes. **We systematically identify, assess and follow-up on risks and opportunities to support this.**
- ◆ We develop our production processes according to the principle of "Avoid mistakes instead of remedying them" and take the effects of quality, the environment, energy, plant safety, health and safety and **information security** into account at the earliest possible stages of product and process planning
- ◆ We continually endeavor to minimize impacts on the environment and use of energy and resources – over and above compliance with legal regulations. For this purpose, we annually define objectives and pursue them.
- ◆ We support the sourcing of energy efficient products and services, which are intended to improve the energy performance.
- ◆ We provide our customers with recommendations on minimizing environmental impacts and implementing health and safety procedures for utilization of our products. With government authorities our collaboration is cooperative.
- ◆ Our corporate culture is characterized by open information and purposeful cooperation. With all interested parties we wish to cultivate unrestricted communication.
- ◆ On our contractual partners we exercise our influence to make them work according to management guidelines identical to ours. This also applies to the principals of the UN Global Compact Initiative ([www.unglobalcompact.org](http://www.unglobalcompact.org)).
- ◆ Management of VACUUMSCHMELZE GmbH & Co. KG regularly monitors and evaluates the effectiveness of this management policy implementation.

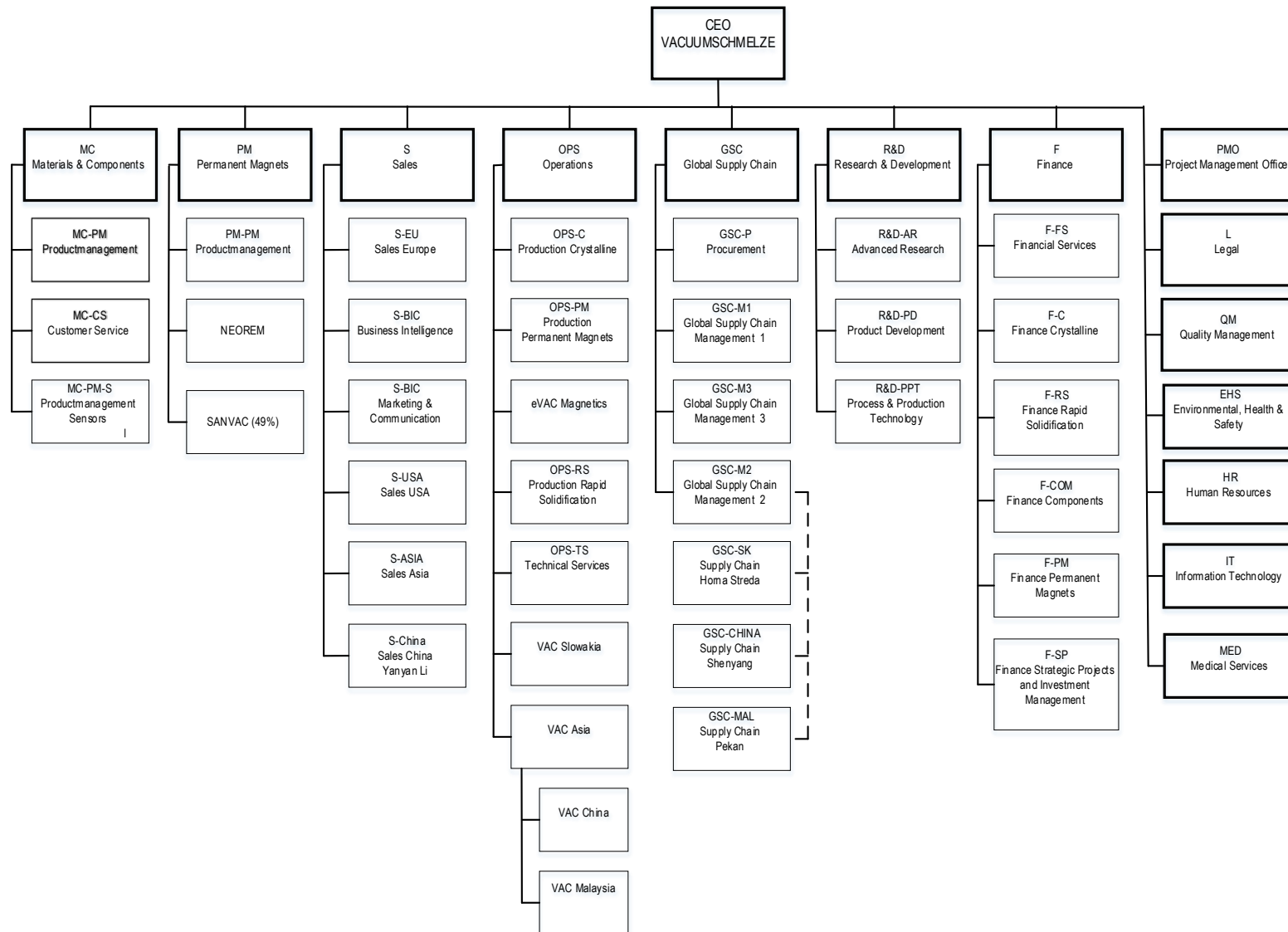
**Please click on the respective organization charts:**

[VACUUMSCHMELZE GmbH & Co. KG, Germany](#)

[VACUUMSCHMELZE Slovakia](#)

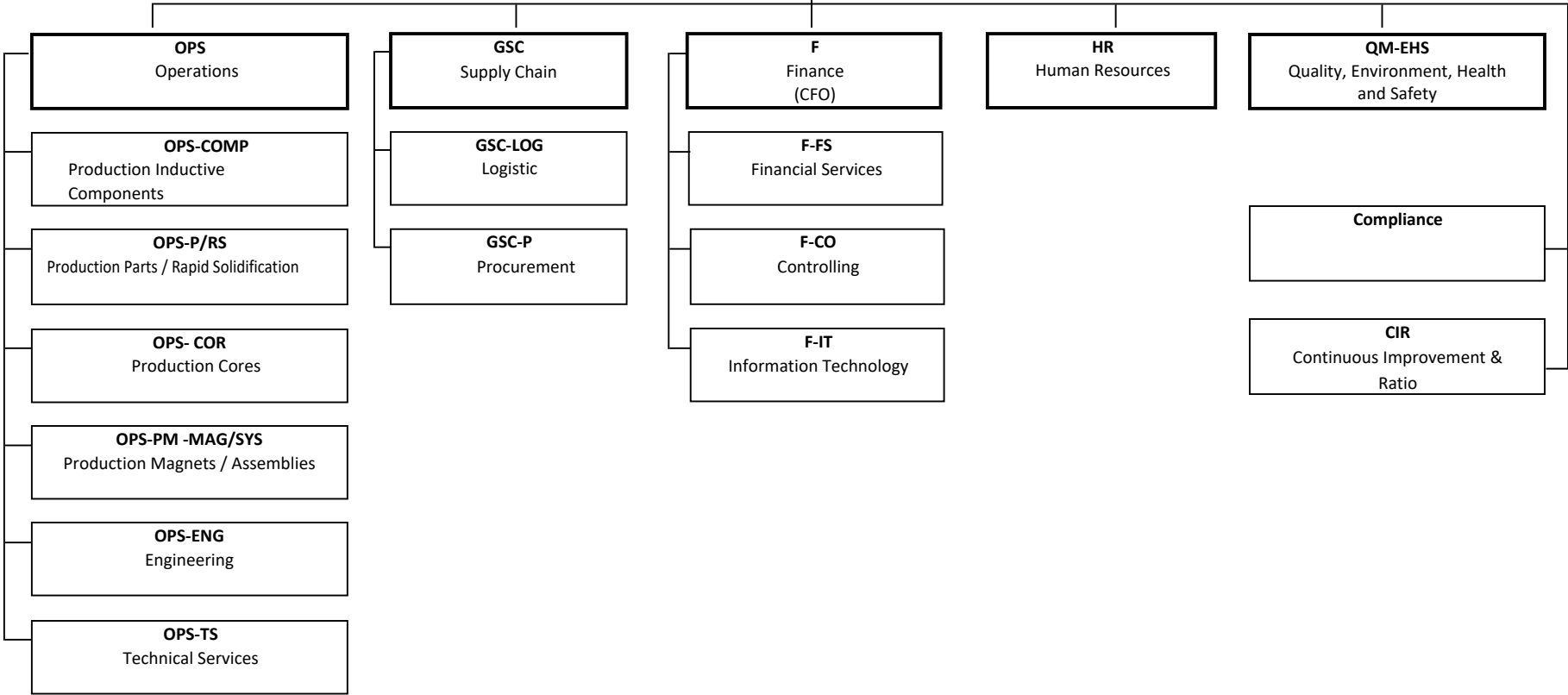
[VACUUMSCHMELZE Malaysia](#)

[VACUUMSCHMELZE China](#)



Officers/Commissioners:	Energie Management:	Senior Safety Engineer:	Incident Management:
Waste Management:	Export Control / Customs:	Patents:	Radiation Protection:
Fire Protection:	Hazardous Items:	Quality Management:	Qualified Electrician:
Chief Compliance Officer:	Immission Protection:	Air Freight Security:	Information Security Officer:
Data Protection:			

**CEO**



Coordinator for:

Environmental protection

Hazardous Items

Occupational Health and Safety

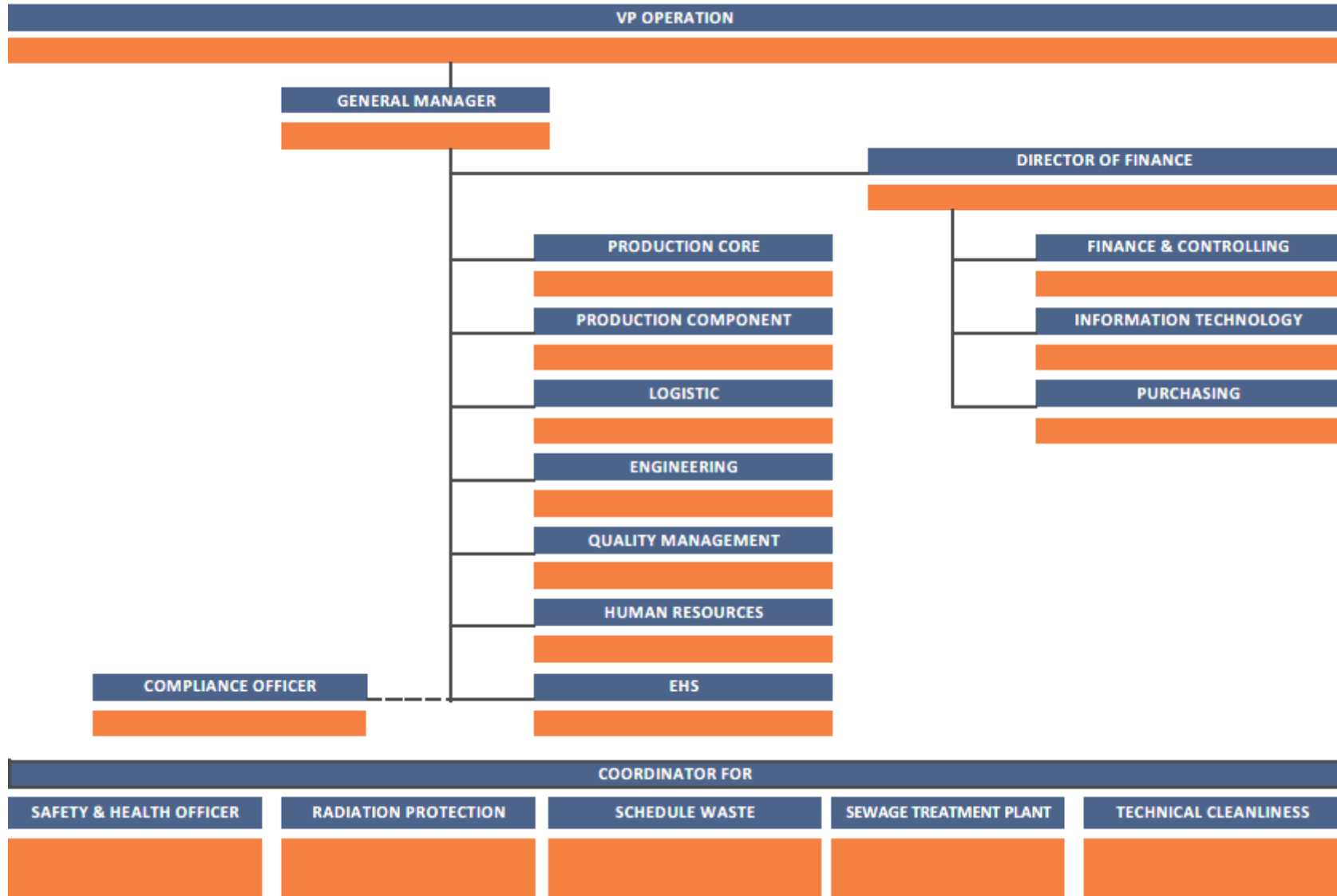
Data Protection Information Security

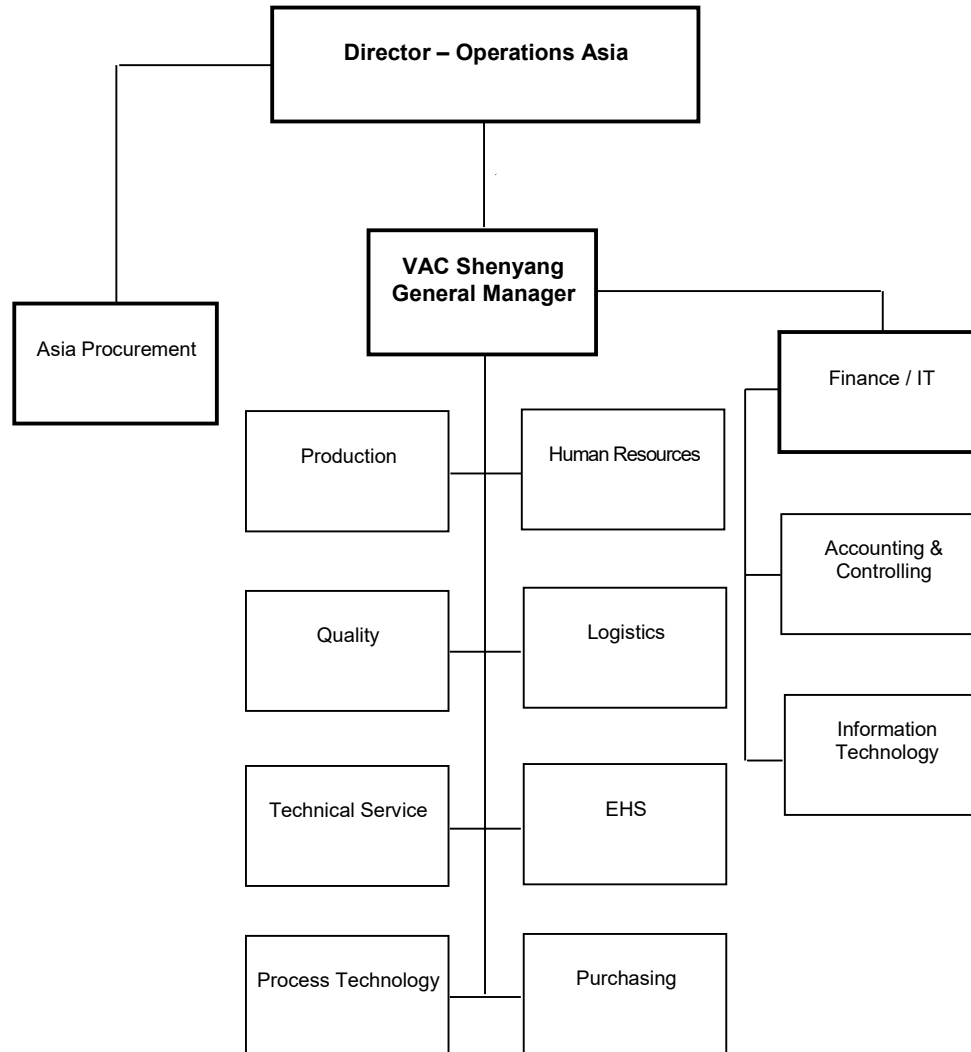
Water protection

Radiation Protection

Air freight security

Fire Protection





Chapter	ISO 9001 ; <i>IATF 16949</i> ; <i>EN 9100</i> Title	Processes VAC
<b>1</b> <i>1.1</i>	<b>Scope</b> <i>Scope</i>	Manual
<b>2</b> <i>2.1</i>	<b>Normative references</b> <i>Normative references</i>	
<b>3</b> <i>3.1</i>	<b>Terms and definitions</b> <i>Automotive terms and definitions</i>	Single processes
<b>4</b> 4.1 4.2 4.3 <i>4.3.1</i> <i>4.3.2</i> 4.4 4.4.1 <i>4.4.1</i> <i>4.4.1</i> <i>4.4.1.1</i> <i>4.4.1.2</i> 4.4.2 <i>4.4.2</i>	<b>Context of the organization</b> Understanding the organization and its context Understanding the needs and expectations of interested parties Determining the scope of the quality management system <i>Determining the scope of the quality management system – supplemental</i> <i>Customer specific requirements</i> QMS and its processes  <i>Conformance of products and processes</i> <i>Product safety</i>	Manual / Order process
<b>5</b> 5.1 5.1.1 <i>5.1.1.1</i> <i>5.1.1.2</i> <i>5.1.1.3</i> 5.1.2 <i>5.1.2</i> 5.2 5.2.1 5.2.2 5.3 <i>5.3</i> <i>5.3.1</i> <i>5.3.2</i>	<b>Leadership</b> Leadership and commitment General <i>Corporate responsibility</i> <i>Process effectiveness and efficiency</i> <i>Process owners</i> Customer focus <i>Customer focus</i> Policy Establishing the quality policy Communicating the quality policy Organizational roles, responsibilities and authorities <i>Organizational roles, responsibilities and authorities</i> <i>Supplemental</i> <i>Responsibility and authority for product requirements and corrective actions</i>	Manual / Management policy / Business and financial planning / Order process / Production
<b>6</b> 6.1 6.1.1 6.1.2 <i>6.1.2.1</i> <i>6.1.2.2</i> <i>6.1.2.3</i> 6.2 6.2.1 6.2.2 <i>6.2.2.1</i> 6.3	<b>Planning</b> Actions to address risks and opportunities  <i>Risk analysis</i> <i>Preventive action</i> <i>Contingency plans</i> Quality objectives and planning to achieve them  <i>Quality objectives and planning to achieve them – supplemental</i> Planning of changes	Business and financial planning / Production

Chapter	ISO 9001 ; <i>IATF 16949</i> ; <i>EN 9100</i> Title	Processes VAC
<b>7</b>	<b>Support</b>	
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7.1.1	General	
7.1.2	People	
7.1.3	Infrastructure	
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7.1.4	Environment for the operation of processes	
<i>7.1.4.1</i>	<i>Environment for the operation of processes – supplemental</i>	
7.1.5	Monitoring and measuring resources	
7.1.5.1	General	
<i>7.1.5.1</i>	<i>General</i>	
<i>7.1.5.1.1</i>	<i>Measurement system analysis</i>	
7.1.5.2	Measurement traceability	
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<i>7.1.5.2</i>	<i>Measurement traceability</i>	
<i>7.1.5.2.1</i>	<i>Records of calibration and verification</i>	
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<i>7.1.5.3.1</i>	<i>Internal laboratory</i>	
<i>7.1.5.3.2</i>	<i>External laboratory</i>	
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<i>7.2.2</i>	<i>Competence – on-the-job training</i>	
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<i>7.2.4</i>	<i>Second-party auditor competency</i>	
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<i>7.3</i>	<i>Awareness</i>	
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7.5.3.2		
<i>7.5.3.2</i>	<i>Record retention</i>	
<i>7.5.3.2.2</i>	<i>Engineering specifications</i>	
		Maintenance / Human resources / Calibration / Order process / Production / Planning / Audits



Chapter	ISO 9001 ; <i>IATF 16949</i> ; <i>EN 9100</i> Title	Processes VAC
<b>8</b>	<b>Operation</b>	
8.1	Operational planning and control	
<i>8.1</i>	<i>Operational planning and control</i>	
<i>8.1.1</i>	<i>Operational planning and control - supplemental</i>	
<i>8.1.1</i>	<i>Operational risk management</i>	
<i>8.1.2</i>	<i>Confidentiality</i>	
<i>8.1.2</i>	<i>Configuration management</i>	
<i>8.1.3</i>	<i>Product Safety</i>	
<i>8.1.4.</i>	<i>Prevention counterfeit parts</i>	
8.2	Requirements for products and services	
8.2.1	Customer communication	
<i>8.2.1.1</i>	<i>Customer communication – supplemental</i>	
8.2.2	Determining the requirements for products and services	
<i>8.2.2</i>	<i>Determining the requirements for products and services</i>	
<i>8.2.2.1</i>	<i>Supplemental</i>	
8.2.3	Review of the requirements for products and services	
8.2.3.1		
<i>8.2.3.1</i>	<i>Supplemental</i>	
<i>8.2.3.1.2</i>	<i>Customer-designated special characteristics</i>	
<i>8.2.3.1.3</i>	<i>Organization manufacturing feasibility</i>	
8.2.3.2		
8.2.4	Changes to requirements for products and services	
8.3	Design and development of products and services	
8.3.1	General	
<i>8.3.1.1</i>	<i>Design and development of products and services – supplemental</i>	
8.3.2	Design and development planning	
<i>8.3.2</i>	<i>Design and development planning</i>	
<i>8.3.2.1</i>	<i>Design and development planning – supplemental</i>	
<i>8.3.2.2</i>	<i>Product design skills</i>	
<i>8.3.3.3</i>	<i>Development of products with embedded software</i>	
8.3.3	Design and development inputs	
<i>8.3.3</i>	<i>Design and development inputs</i>	
<i>8.3.3.1</i>	<i>Product design input</i>	
<i>8.3.3.2</i>	<i>Manufacturing process design input</i>	
<i>8.3.3.3</i>	<i>Special characteristics</i>	
8.3.4	Design and development controls	
<i>8.3.4</i>	<i>Design and development controls</i>	
<i>8.3.4.1</i>	<i>Monitoring</i>	
<i>8.3.4.1</i>		
<i>8.3.4.2</i>	<i>Design and development validation</i>	
<i>8.3.4.3</i>	<i>Prototype programme</i>	
<i>8.3.4.4</i>	<i>Product approval process</i>	
8.3.5	Design and development outputs	
<i>8.3.5</i>	<i>Design and development outputs</i>	
<i>8.3.5.1</i>	<i>Design and development outputs - supplemental</i>	
<i>8.3.5.2</i>	<i>Manufacturing process design output</i>	
8.3.6	Design and development changes	
<i>8.3.6</i>	<i>Design and development changes</i>	
<i>8.3.6.1</i>	<i>Design and development changes - supplemental</i>	

Order process /  
Planning /  
Procurement /  
Problem  
management /  
Maintenance

Chapter	ISO 9001 ; <i>IATF 16949</i> ; <i>EN 9100</i> Title	Processes VAC
8.4	Control of externally provided processes, products and services General	
8.4.1	<i>General</i>	
8.4.1	<i>General - supplemental</i>	
8.4.1.1	<i>Supplier selection process</i>	
8.4.1.1	<i>Customer-directed sources</i>	
8.4.1.2		
8.4.1.3		
8.4.2	Type and extent of control	
8.4.2	<i>Type and extent of control</i>	
8.4.2.1	<i>Type and extent of control – supplemental</i>	
8.4.2.2	<i>Statutory and regulatory requirements</i>	
8.4.2.3	<i>Supplier QMS development</i>	
8.4.2.3.1	<i>Automotive product-related (or products)</i>	
8.4.2.4	<i>Supplier monitoring</i>	
8.4.2.4.1	<i>„Second party“-Audits</i>	
8.4.2.5	<i>Supplier development</i>	
8.4.3	Information for external providers	
8.4.3	<i>Information for external providers</i>	
8.4.3.1	<i>Information for external providers - supplemental</i>	
8.5	Production and service provision	
8.5.1	Control of production and service provision	Order process / Planning / Procurement / Problem management / Maintenance
8.5.1	<i>Control plan</i>	
8.5.1.1	<i>Control of equipment, tools and software programs</i>	
8.5.1.1	<i>Standardized work – operator instructions</i>	
8.5.1.2	<i>Validation and control of special processes</i>	
8.5.1.2	<i>Verification of job set-ups</i>	
8.5.1.3	<i>Production process verification</i>	
8.5.1.3	<i>Verification after shutdown</i>	
8.5.1.4	<i>Total Productive Maintenance (TPM)</i>	
8.5.1.5	<i>Management of tools, test, inspection and manufacturing equipment</i>	
8.5.1.6	<i>Production scheduling</i>	
8.5.1.7		
8.5.2	Identification and traceability	
8.5.2	<i>Identification and traceability</i>	
8.5.3	Property belonging to customers or external providers	
8.5.4	Preservation	
8.5.4	<i>Preservation</i>	
8.5.4.1	<i>Preservation - supplemental</i>	
8.5.5	Post-delivery activities	
8.5.5	<i>Post-delivery activities</i>	
8.5.5.1	<i>Feedback of information from service</i>	
8.5.5.2	<i>Service agreements with customer</i>	
8.5.6	Control of changes	
8.5.6	<i>Control of changes</i>	
8.5.6.1	<i>Control of changes – supplemental</i>	
8.5.6.2	<i>Temporary change of process controls</i>	

Chapter	ISO 9001 ; <i>IATF 16949</i> ; <i>EN 9100</i> Title	Process VAC
8.6 <i>8.6</i> <i>8.6.1</i> <i>8.6.2</i> <i>8.6.3</i> <i>8.6.4</i>  <i>8.6.5</i> <i>8.6.6</i> 8.7 8.7.1 <i>8.7.1</i> <i>8.7.1.1</i> <i>8.7.1.2</i> <i>8.7.1.3</i> <i>8.7.1.4</i> <i>8.7.1.5</i> <i>8.7.1.6</i> <i>8.7.1.7</i> 8.7.2	Release of products and services <i>Release of products and services</i> <i>Release of products and services – supplemental</i> <i>Layout inspection and functional testing</i> <i>Appearance items</i> <i>Verification and acceptance of conformity of externally provided products and services</i> <i>Statutory and regulatory conformity</i> <i>Acceptance criteria</i> Control of nonconforming outputs  <i>Customer authorization for concession</i> <i>Control of nonconforming product – customer specified process</i> <i>Control of suspect product</i> <i>Control of reworked product</i> <i>Control of repaired product</i> <i>Customer notification</i> <i>Nonconforming product disposition</i>	Order process / Planning / Procurement / Problem management / Maintenance
<b>9</b> 9.1 9.1.1 <i>9.1.1.1</i> <i>9.1.1.2</i> <i>9.1.1.3</i> 9.1.2 <i>9.1.2</i> <i>9.1.2.1</i> 9.1.3 <i>9.1.3</i> <i>9.1.3.1</i> 9.2 9.2.1 <i>9.2.1</i> 9.2.2 <i>9.2.2.1</i> <i>9.2.2.2</i> <i>9.2.2.3</i> <i>9.2.2.4</i> 9.3 9.3.1 <i>9.3.1.1</i> 9.3.2 <i>9.3.2</i> <i>9.3.2.1</i> 9.3.3 <i>9.3.3</i> <i>9.3.3.1</i>	<b>Performance evaluation</b> Monitoring, measurement, analysis and evaluation General <i>Monitoring and measurement of manufacturing processes</i> <i>Identification of statistical tools</i> <i>Application of statistical concepts</i> Customer satisfaction <i>Customer satisfaction</i> <i>Customer satisfaction - supplemental</i> Analysis and evaluation <i>Analysis and evaluation</i> <i>Prioritization</i> Internal audit  Internal audit programme <i>QM-system audit</i> <i>Manufacturing process audit</i> <i>Product audit</i> Management review General <i>Management review - supplemental</i> Management review inputs <i>Management review inputs</i> <i>Management review inputs – supplemental</i> Management review outputs <i>Management review outputs</i> <i>Management review outputs – supplemental</i>	Production / Planning / Audits / Management review

Chapter	ISO 9001 ; <i>IATF 16949</i> ; <i>EN 9100</i> Title	Processes VAC
<b>10</b> 10.1 10.2 10.2.1 <i>10.2.1</i> 10.2.2 <i>10.2.3</i> <i>10.2.4</i> <i>10.2.5</i> <i>10.2.6</i> 10.3 <i>10.3</i> <i>10.3.1</i>	<b>Improvement</b> General Nonconformity and corrective action    <i>Problem solving</i> <i>Error-proofing</i> <i>Warranty management systems</i> <i>Customer complaints and field failure test analysis</i> Continual improvement <i>Continual improvement</i> <i>Continual improvement – supplemental</i>	          Problem- management / Improvement / Planning / Audits

<b>Chapter</b>	<b>ISO 14001 Title</b>	<b>Processes VAC</b>
<b>1</b>	<b>Scope</b>	Manual
<b>2</b>	<b>Normative references</b>	
<b>3</b>	<b>Terms and definitions</b>	Single processes
<b>4</b>	<b>Context of the organization</b>	Manual
4.1	Understanding the organization and its context	
4.2	Understanding the needs and expectations of the interested parties	
4.3	Determining the scope of the environmental management system	
4.4	Environmental management system	
<b>5</b>	<b>Leadership</b>	Manual / Management review
5.1	Leadership and commitment	
5.2	Environmental policy	
5.3	Organizational roles, responsibilities and authorities	
<b>6</b>	<b>Planning</b>	Business and financial planning / Improvement / Problem management / Planning
6.1	Actions to address risks and opportunities	
6.1.1	General	
6.1.2	Environmental aspects	
6.1.3	Compliance obligations	
6.1.4	Planning action	
6.2	Environmental objectives and planning to achieve them	
6.2.1	Environmental objectives	
6.2.2	Planning actions to achieve environmental objectives	
<b>7</b>	<b>Support</b>	
7.1	Resources	
7.2	Competence	
7.3	Awareness	
7.4	Communication	
7.4.1	General	
7.4.2	Internal communication	
7.4.3	External communication	
7.5	Documented information	
7.5.1	General	
7.5.2	Creating and updating	
7.5.3	Control of documented information	
<b>8</b>	<b>Operation</b>	Problem management / Production
8.1	Operational planning and control	
8.2	Emergency preparedness and response	
<b>9</b>	<b>Performance evaluation</b>	Audits / Management review / Maintenance / Calibration
9.1	Monitoring, measurement, analysis and evaluation	
9.1.1	General	
9.1.2	Evaluation of compliance	
9.2	Internal audit	
9.2.1	General	
9.2.2	Internal audit programme	
9.3	Management review	
<b>10</b>	<b>Improvement</b>	Improvement / Problem management
10.1	General	
10.2	Nonconformity and corrective action	
10.3	Continual improvement	

<b>Chapter</b>	<b>ISO 50001 Title</b>	<b>Processes VAC</b>
<b>1</b>	<b>Scope</b>	Manual
<b>2</b>	<b>Normative references</b>	
<b>3</b>	<b>Terms and definitions</b>	Single processes
<b>4</b>	<b>Context of the organization</b>	Manual
4.1	Understanding the organization and its context	
4.2	Understanding the needs and expectations of the interested parties	
4.3	Determining the scope of the energy management system	
<b>4.4</b>	Energy management system	
<b>5</b>	<b>Leadership</b>	Manual / Management review
5.1	Leadership and commitment	
5.2	Energy policy	
5.3	Organizational roles, responsibilities and authorities	
<b>6</b>	<b>Planning</b>	Business and financial planning / Improvement / Problem management / Planning
6.1	Actions to address risks and opportunities	
6.2	Objectives, energy targets and planning to achieve them	
6.3	Energy review	
6.4	Energy performance indicators	
6.5	Energy baseline	
6.6	Planning for collection of energy data	
<b>7</b>	<b>Support</b>	Human resources / Improvement / Management review
7.1	Resources	
7.2	Competence	
7.3	Awareness	
7.4	Communication	
7.5	Documented information	
<b>8</b>	<b>Operation</b>	Problem management / Production
8.1	Operational planning and control	
8.2	Design	
8.3	Procurement	
<b>9</b>	<b>Performance evaluation</b>	Audits / Management review / Maintenance / Calibration
9.1	Monitoring, measurement, analysis and evaluation	
9.2	Internal audit	
9.3	Management review	
<b>10</b>	<b>Improvement</b>	Improvement / Problem management
10.1	Nonconformity and corrective action	
10.2	Continual improvement	

<b>Chapter</b>	<b>ISO 45001 Title</b>	<b>Processes VAC</b>
<b>1</b>	<b>Scope</b>	Manual
<b>2</b>	<b>Normative references</b>	
<b>3</b>	<b>Terms and definitions</b>	Single processes
<b>4</b>	<b>Context of the organization</b>	Manual
4.1	Understanding the organization and its context	
4.2	Understanding the needs and expectations of the interested parties	
4.3	Determining the scope of the OH&s management system	
4.4	OH&S management system	
<b>5</b>	<b>Leadership and worker participation</b>	Manual / Management review
5.1	Leadership and commitment	
5.2	OH&S policy	
5.3	Organizational roles, responsibilities and authorities	
5.4	Consultation and participation of workers	
<b>6</b>	<b>Planning</b>	Business and financial planning / Improvement / Problem management / Planning
6.1	Actions to address risks and opportunities	
6.2	OH&S objectives and planning to achieve them	
<b>7</b>	<b>Support</b>	Human resources / Improvement / Management review
7.1	Resources	
7.2	Competence	
7.3	Awareness	
7.4	Communication	
7.5	Documented information	
<b>8</b>	<b>Operation</b>	Problem management / Production
8.1	Operational planning and control	
8.2	Emergency preparedness and response	
<b>9</b>	<b>Performance evaluation</b>	Audits / Management review / Maintenance / Calibration
9.1	Monitoring, measurement, analysis and performance evaluation	
9.2	Internal audit	
9.3	Management review	
<b>10</b>	<b>Improvement</b>	Improvement / Problem management
10.1	General	
10.2	Nonconformity and corrective action	
10.3	Continual improvement	

Type of system	Production-/supply-/disposal systems at location				
	Hanau	Horná Streda	Pekan	Shenyang	Sumter
<b>Production systems for the following processes</b>					
Melting / Casting	Crystalline Rapid Solidification	–	–	–	–
Rolling	Crystalline	–	–	–	–
Pickling / Cleaning	Crystalline Permanent magnets	Crystalline Permanent magnets	–	–	Permanent magnets
Electroplating	Permanent magnets	–	–	–	Permanent magnets
Coating / Painting	Crystalline Permanent magnets	Crystalline Permanent magnets	–	–	Permanent magnets
Mechanical processing	Crystalline Rapid Solidification Permanent	Crystalline Permanent magnets	–	–	Permanent magnets
Powder production	Permanent magnets	–	–	–	Permanent magnets
Soldering / Potting	Crystalline Rapid Solidification (only within development)	Crystalline Rapid Solidification	Crystalline Rapid Solidification	Crystalline Rapid Solidification	–
<b>Supply-/disposal systems</b>					
Waste water systems	●	●	●	Not necessary	–
Fuel systems	● <sup>1)</sup>	●	–	–	–
Materials store	● <sup>1)</sup>	●	●	●	–

<sup>1)</sup>: In addition to production site Grüner Weg 37, Hanau also production site Ehrichstraße 5, Hanau



Date	Changes / Appendices / Explanations	Issue
	Old structure of the Integrated Management System	1 – 5 ww
25.08.2017	Complete revision of the structure of the Integrated Management System 2017	6 ww
23.05.2019	<ul style="list-style-type: none"> <li>- Addition of unmanned locations in context of energy management (see chapter 2)</li> <li>- Update of management policy</li> <li>- Update of organisation charts</li> </ul>	7 ww
12.05.2020	<ul style="list-style-type: none"> <li>- Chapter 3.5 was updated</li> <li>- ISO 17025 was removed from the scope and enclosure 3.5 was removed</li> <li>- ISO 50001:2018 was updated in chapter 3.3</li> <li>- In scope was OHSAS 18001 replaced by ISO 45001 and enclosure 3.4 updated</li> <li>- Organizational charts were updated</li> <li>- Management policy were updated</li> </ul>	8 ww
03.05.2022	<ul style="list-style-type: none"> <li>- Management policy was updated</li> <li>- the scope of energy management was updated</li> <li>- Organizational charts were updated</li> <li>- in German version: gender neutral definition of employee was implemented</li> </ul>	9 ww
01.08.2023	<ul style="list-style-type: none"> <li>- Management policy was updated</li> <li>- the scope of energy management was updated</li> </ul>	10 ww
04.03.2024	<ul style="list-style-type: none"> <li>- the supporting functions in chapter 3.5 were updated</li> <li>- the companies in the ISO 50001 scope of application report have been updated</li> <li>- the revision levels of the subchapters were removed</li> </ul>	11 ww
<b>13.08.2024</b>	<ul style="list-style-type: none"> <li>- <b>location Sumter was added</b></li> <li>- <b>the address of location Hanau Leipziger Straße 10 was changed to Willy-Brandt-Straße 23</b></li> <li>- <b>the supporting functions in chapter 3.5 were updated</b></li> </ul>	<b>12 ww</b>