

# **Integrated Management Manual of**



VACUUMSCHMELZE GmbH & Co. KG
Headquarter and production sites in Germany
63450 Hanau, Grüner Weg 37 (picture)
63450 Hanau, Ehrichstraße 5
63450 Hanau, Leipzigerstraße 10



VACUUMSCHMELZE, s.r.o. With production site Horná Streda 1325/14 SK-916 24 Horná Streda (Slovakia)



VACUUMSCHMELZE (M) Sdn. Bhd.
With production site
Lot 3465 Tanah Putih, Pahang Darul Makmur, MAL26600 Pekan (Malaysia)



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

# **Companies of VAC Group**

http://www.vacuumschmelze.com

Issue 10, issued by QM-HU on 01.08.2023



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4	Production- / supply- / disposal systems	1	25.08.2017
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# **Release of Management Manual:**

Release	Name	Signature	Date
VAC Hanau: CEO (Chief Executive Officer)	Dr. Erik Eschen	sgd. Dr. Eschen	01.08.2023
VAC Hanau: Representative for quality	Matthias Reidel	sgd. Reidel	01.08.2023
VAC Hanau: Representative For Environment / Safety	Sascha Fuchs	sgd. Fuchs	01.08.2023
VAC Hanau: Representative For energy management	Patricia Borgwardt	sgd. Borgwardt	01.08.2023



#### The company

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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)

Cross-unit tasks are managed by central departments (see Organization chart in <u>enclosure 2</u>). The chart below gives an overview of the production facilities. <u>Enclosure 4</u> 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.

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

<sup>1):</sup> Production site Grüner Weg 37

<sup>2):</sup> Production site Ehrichstraße 5

<sup>3):</sup> Production site Leipzigerstraße 10



#### Scope / Field of application

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#### 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
	ISO 9001	Branch independent standard
Quality	IATF 16949	Additional requirements of automotive industry
	EN 9100	Additional requirements of aviation / space and defence industry
Environment	ISO 14001	
Energy	ISO 50001	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).

**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

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.



#### The Integrated Management System of VAC

IM Manual Chapter 3

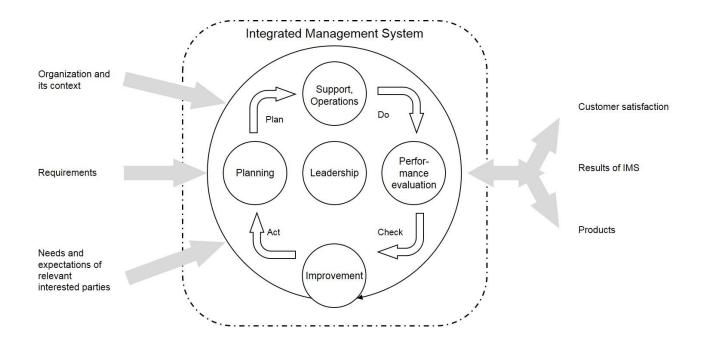
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VAC runs a process oriented Integrated Management System - as described - that meets the standards listed in <a href="mailto:chapter2">chapter 2</a> with regard to <a href="mailto:quality">quality</a>, <a href="mailto:energy">energy</a> as well as 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.





### **Process landscape**

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M1: Business and financial Management planning processes M3: Management review M2: Continuous improvement Customer Product **Business** requirements G1: Order G3: Scheduling G4: Customer G2: Planning Legal processes process Production satisfaction requirements Company results Company targets U2: Human **U1: Procurement** U3: Maintenance **U4: IT** resources Supporting processes U5: Inspection U6: Problem U7: Audits equipment monitoring management



#### Management processes

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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.



#### **Business processes**

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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.



#### Supporting processes

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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.



### **Processes of the locations**

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Processes	Locations									
	Hanau <sup>2)</sup> Grüner We	g	Hanau <sup>3</sup> Ehrichstra		Horna Stre	da <sup>4)</sup>	Pekan	5)	Shenyan	g <sup>6)</sup>
Business and financial planning	•			2)	•	2)	•	2)	•	2)
CIP	•		•		•		•		•	
Management review	•			2)	•		•		•	
Order process	•			2)		2)		2)		2)
Planning	•		•	2)	<b>1</b> )	2)	1)	2)	<b>1</b> )	2)
Scheduling	•		•		•		•		•	
Production	•		•	2)	•		•		•	
Procurement	•			2)	•		•		•	
Human resources	•			2)	•		•		•	
Maintenance	•			2)	•		•		•	
IT	•			2)	•	2)	•	2)	•	2)
Problem management	•		•		•		•		•	
Inspection equipment monitoring	•			2)	•	2)	•	2)	•	2)
Audits	•			2)	•	2)	•	2)	•	2)

<sup>1)</sup> only process development 2) 3) 4) 5) 6) supported by

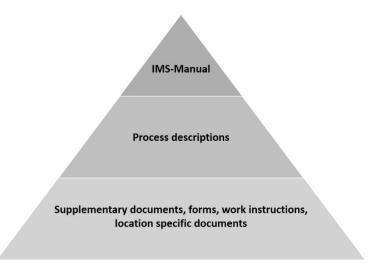


#### **Documentation of IMS**

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



#### 1. Integrated Management Manual

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

<u>Release</u>: 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.

<u>Availability</u>: 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

<u>Content</u>: 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

<u>Content</u>: Details / procedures to supplement the Process descriptions

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

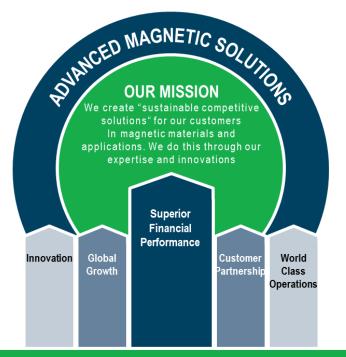
Availability: Second level documents are solely for in-company use



#### **Management policy**

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A CULTURE of PARTNERSHIP, PEOPLE DEVELOPMENT & OPENNESS to STRENGTHEN ALL of VAC

#### SAFETY and COMPLIANCE FIRST IN EVERYTHING WE DO

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.



### **Management policy**

IM Manual Enclosure 1

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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).

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



#### **Management policy**

IM Manual Enclosure 1

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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 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 (<a href="https://www.unglobalcompact.org">www.unglobalcompact.org</a>).
- ♦ Management of VACUUMSCHMELZE GmbH & Co. KG regularly monitors and evaluates the effectiveness of this management policy implementation.



# **Organization charts**

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## Please click on the respective organization charts:

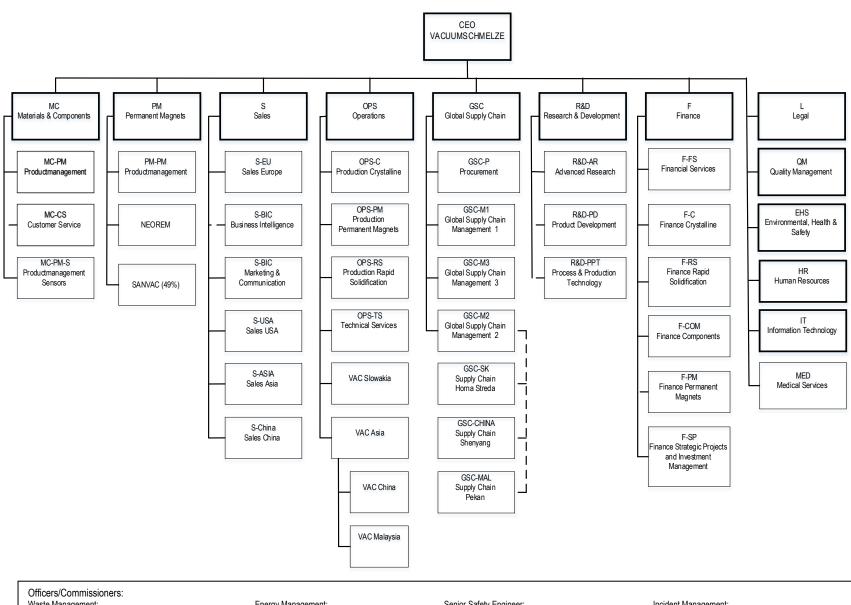
VACUUMSCHMELZE GmbH & Co. KG, Germany

VACUUMSCHMELZE Slovakia

**VACUUMSCHMELZE Malaysia** 

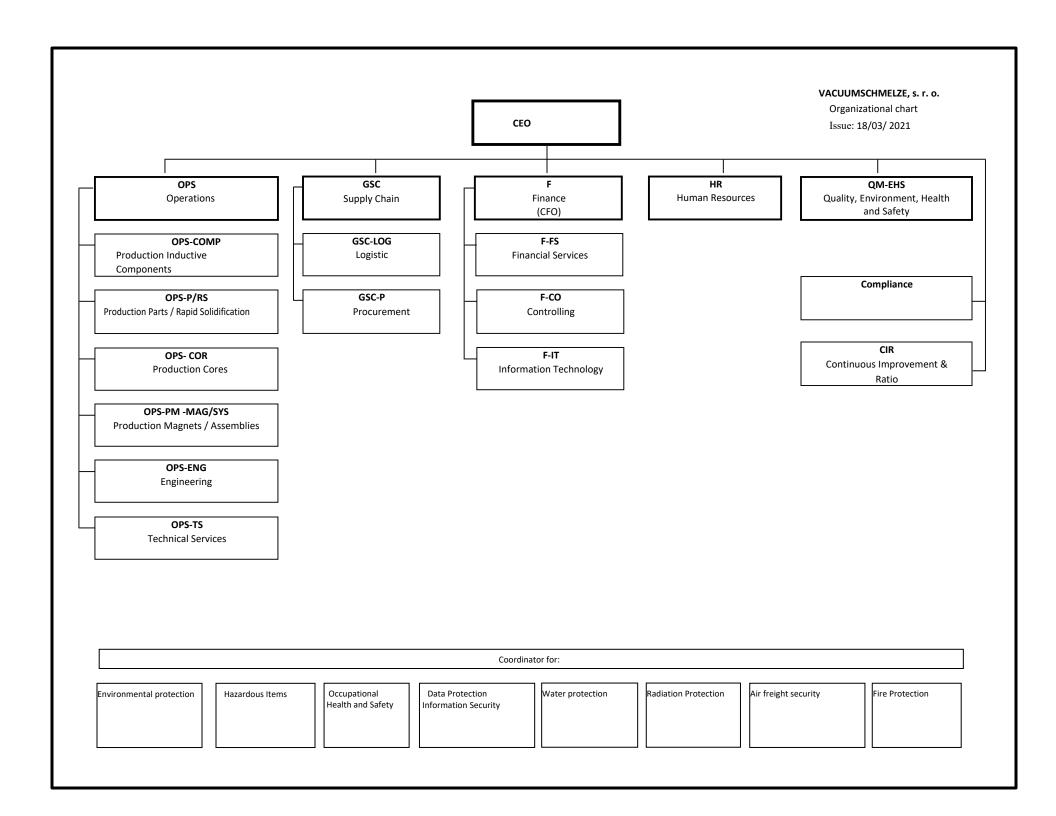
**VACUUMSCHMELZE China** 

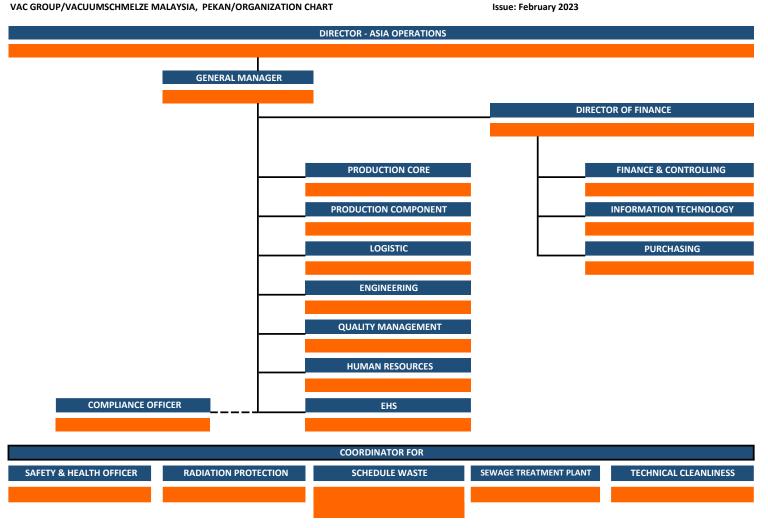
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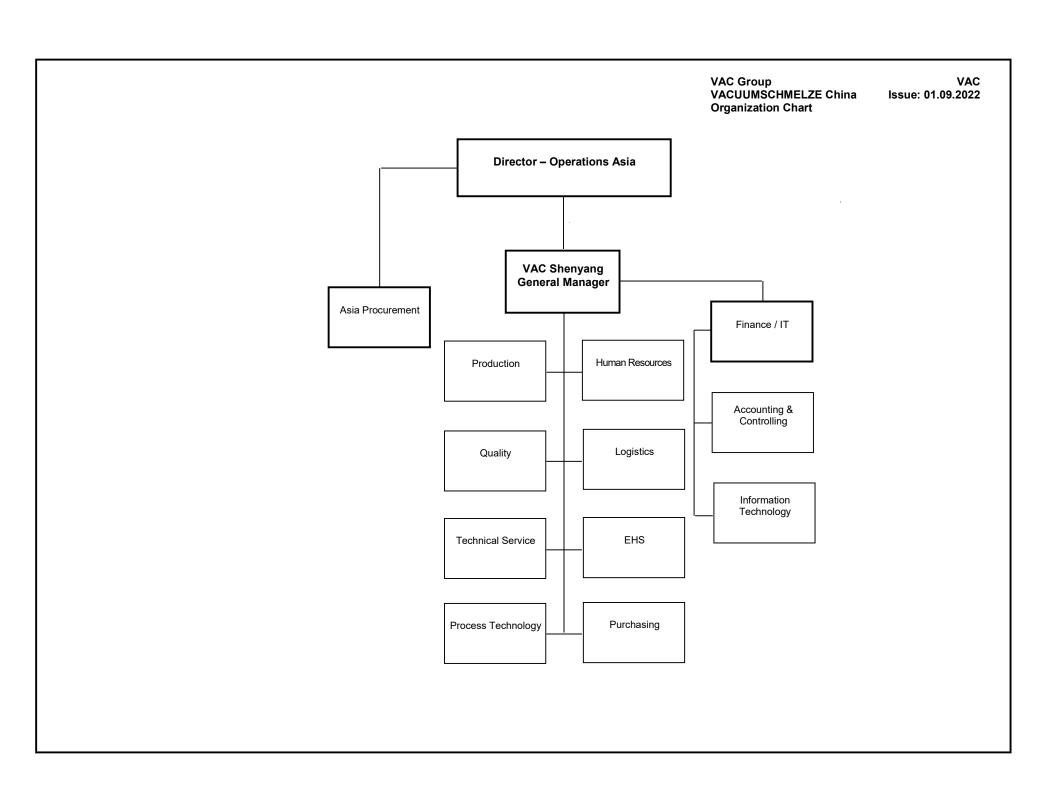


Waste Management:
Fire Protection:
Chief Compliance Officer:
Data Protection:

Energy Management: Export Control/Customs: Hazardous Items: Immission Protection: Senior Safety Engineer: Patents: Quality Management: Air Freight Security: Incident Management: Radiation Protection: Qualified Electrician:









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Chapter	ISO 9001 ; <i>IATF 16949</i> ; <i>EN 9100</i> Title	Processes VAC
1	Scope	Manual
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<b>2</b> 2.1	Normative references	
	Normative references	
<b>3</b> 3.1	Terms and definitions  Automotive terms and definitions	Single processes
4		
<b>4</b> 4.1	Context of the organization Understanding the organization and its context	
4.2	Understanding the organization and its context  Understanding the needs and expectations of interested parties	
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4.3.1	Determining the scope of the quality management system – supplemental	
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4.4.1		
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4.4.1.2	Product safety	
4.4.2		
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5.1.1.1	Corporate responsibility	
5.1.1.2	Process effectiveness and efficiency	Manual /
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5.1.2	Customer focus	Business and
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6.2.2		
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6.3	Planning of changes	



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7.1.5.2	Calibration / verification records	
7.1.5.2	Measurement traceability	
7.1.5.2.1	Records of calibration and verification	Maintanana /
7.1.5.3	Requirements to laboratories	Maintenance /
7.1.5.3.1	Internal laboratory	Human resources
7.1.5.3.2	External laboratory	Calibration /
7.1.6	Organizational knowledge	Calibration /
7.2	Competence	Order process /
7.2.1	Competence – supplemental	Production /
7.2.2	Competence – on-the-job training	Planning / Audits
7.2.3	Competence of internal auditors	Audits
7.2.4	Second-party auditor competency	
7.3	Awareness	
7.3	Awareness	
7.3.1	Awareness – supplemental	
7.3.2	Employee motivation and empowerment	
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7.5.3.2		
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8.1	Operational planning and control	
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Chapter	ISO 9001 ; <i>IATF 16949</i> ; <i>EN 9100</i> Title	Processes VAC
8.4 8.4.1 8.4.1.1 8.4.1.1 8.4.1.2 8.4.1.3 8.4.2 8.4.2.1 8.4.2.2 8.4.2.3 8.4.2.3.1 8.4.2.4 8.4.2.4.1 8.4.2.5 8.4.3 8.4.3.1 8.5 8.5.1 8.5.1.1 8.5.1.1 8.5.1.1 8.5.1.2 8.5.1.3 8.5.1.3 8.5.1.3 8.5.1.3 8.5.1.4 8.5.1.5 8.5.1.7 8.5.1.6 8.5.1.7 8.5.2 8.5.3 8.5.1.7 8.5.2 8.5.3 8.5.1.8 8.5.1.8 8.5.1.9 8.5.1.1 8.5.1.1 8.5.1.2 8.5.1.3 8.5.1.3 8.5.1.3 8.5.1.4 8.5.1.5 8.5.1.6 8.5.1.7 8.5.2 8.5.3 8.5.1.6 8.5.1.7 8.5.2 8.5.3 8.5.4 8.5.5.1 8.5.5.2 8.5.6 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5	Control of externally provided processes, products and services General General - supplemental  Supplier selection process Customer-directed sources Type and extent of control - supplemental Statutory and regulatory requirements Supplier QMS development Automotive product-related (or products) Supplier monitoring "Second party"-Audits Supplier development Information for external providers Control of production and service provision Control of equipment, tools and software programs Standardized work – operator instructions Validation and control of special processes Verification of job set-ups Production process verification Verification after shutdown Total Productive Maintenance (TPM) Management of tools, test, inspection and manufacturing equipment Production scheduling Identification and traceability Identification and traceability Property belonging to customers or external providers Preservation Preservation Preservation Preservation Preservation supplemental Post-delivery activities Feedback of information from service Service agreements with customer Control of changes Control of changes Control of changes – supplemental Temporary change of process controls	Order process / Planning / Procurement / Problem management / Maintenance



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



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



## Cross reference list ISO 14001 – Management Manual

IM Manual Enclosure 3.2 Issue 1, Page 1/1

Chapter	ISO 14001 Title	Processes VAC
1	Scope	Manual
2	Normative references	
3	Terms and definitions	Single processes
4	Context of the organization	
4.1	Understanding the organization and its context	
4.2	Understanding the needs and expectations of the interested parties	Manual
4.3	Determining the scope of the environmental management system	
4.4	Environmental management system	
5	Leadership	Manual /
5.1	Leadership and commitment	Management
5.2	Environmental policy	review
5.3	Organizational roles, responsibilities and authorities	
6	Planning	
6.1	Actions to address risks and opportunities	Business and
6.1.1	General	financial planning
6.1.2	Environmental aspects	/ Improvement /
6.1.3 6.1.4	Compliance obligations Planning action	Problem
6.1.4	Environmental objectives and planning to achieve them	management /
6.2.1	Environmental objectives	Planning
6.2.2	Planning actions to achieve environmental objectives	
7	Support	
7.1	Resources	
7.1	Competence	
7.3	Awareness	
7.4	Communication	Human recourses
7.4.1	General	/ Improvement /
7.4.2	Internal communication	Management
7.4.3	External communication	review
7.5	Documented information	
7.5.1	General	
7.5.2	Creating and updating	
7.5.3	Control of documented information	
8	Operation	Problem
8.1	Operational planning and control	management /
8.2	Emergency preparedness and response	Production
9	Performance evaluation	
9.1	Monitoring, measurement, analysis and evaluation	/ ما:لم ٨
9.1.1	General	Audits /
9.1.2	Evaluation of compliance	Management
9.2	Internal audit	review / Maintenance /
9.2.1	General	Calibration
9.2.2	Internal audit programme	Calibration
9.3	Management review	
10	Improvement	Improvement /
10.1	General	Problem
10.2	Nonconformity and corrective action	management
10.3	Continual improvement	agaa



## Cross reference list ISO 50001 - Management Manual

IM Manual Enclosure 3.3 Issue 2, Page 1/1

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



## Cross reference list ISO 45001 – Management Manual

IM Manual Enclosure 3.4 Issue 2, Page 1/1

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



# Production- / supply- / disposal systems

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Issue 1, Page 1/1

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

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



# Changes in documentation

IM Manual Enclosure 5 Issue 5, Page 1/1

Date	Date Changes / Appendices / Explanations		
	Old structure of the Integrated Management System	1 – 5 ww	
25.08.2017	Complete revision of the structure of the Integrated Management System 2017		
23.05.2019	<ul> <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	- Chapter 3.5 was updated - ISO 17025 was removed from the scope and enclosure 3.5 was removed - ISO 50001:2018 was updated in chapter 3.3 - In scope was OHSAS 18001 replaced by ISO 45001 and enclosure 3.4 updated - Organizational charts were updated - Management policy were updated	8 ww	
03.05.2022	- Management policy was updated - the scope of energy management was updated - Organizational charts were updated - in German version: gender neutral definition of employee was implemented	9 ww	
01.08.2023	- Management policy was updated - the scope of energy management was updated	10 ww	