



## Quality in Perfection

Management handbook  
DIN EN ISO 9001:2008

Rotated by GRW



**GEBR. REINFURT GMBH & CO. KG**  
HIGH-PRECISION BALL BEARINGS



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# Quality in Perfection



GRW is an international company specializing in the development and manufacturing of high precision miniature ball bearings. Customer satisfaction is our top priority. Our global reputation for quality is due to our continuous focus on improving our products and manufacturing processes.

With this goal in mind our management team has implemented a state of the art management system which integrates the needs of any future market requirements. Our company strategy of growth and innovation provides a strong basis for partnerships with customers as well as our valued suppliers. Implementation of this strategy will provide long term challenging and secure jobs for GRW employees.

This management system complies with **DIN EN ISO 9001:2008** requirements and is applicable to all GRW divisions. Our management system's goals and procedures create an environment for constant improvement of all company processes and services. Our staff is committed to this process.

July 2010  
The Management Board

# Our Company



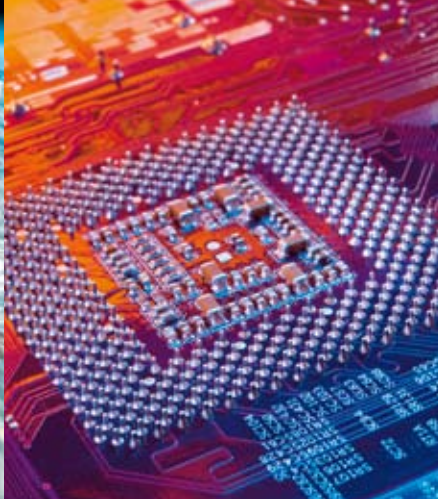
The GRW company group, with head offices in Rimpar near Würzburg, an assembly location in Prachatice, (Czech Republic) and a direct sales office in the USA is a global technology leader in the development and production of high precision miniature ball bearings.

Our standard product range includes various versions of radial ball bearings with bores from 1 mm to 25 mm and outer diameters from 3 mm to 40 mm in both metric and inch sizes. In addition to accessory parts we also produce bearing assemblies as well as special custom ball bearings based on a modular system to optimize development times and costs. State of the art equipment and processes are used for all manufacturing operations.

From individual system solutions for mini series to high volume standard applications, GRW offers customers personalized application suggestions, high-quality engineering and short lead times to provide market focused solutions in a timely manner.

The GRW company group includes over 400 employees and is globally represented by numerous regional representatives.

# Our Customers





We supply leading edge original equipment manufacturers and retailers worldwide with our products for diverse fields of applications in almost all areas of industry, for example:

- Electrical Engineering
- Microelectronics
- Medical and Dental Technology
- Aerospace Technology
- Vacuum Technology
- Mechanical and Plant Engineering
- Measuring Technology
- ICT

Our main goal is to constantly meet or exceed customer expectations. It is therefore every employee's duty to be aware of customer requirements and to guarantee meeting these expectations. Thus permanently achieving a consistent high level of customer satisfaction in quality, delivery and price.

We are in constant contact with our customers so that we get to know each individual customer requirement and can

gear our actions towards them. We run a continuous improvement process system and check our processes using a modern key performance indicator system. This enables us to recognize, improve existing processes and prevent any problems that could occur.

Our customers are the alpha ( $\alpha$ ) and omega ( $\Omega$ ) of all GRW processes.

# Our Suppliers



We are only in a unique position to be able to offer our customers exceptional products and services due to our qualified suppliers' outstanding performance. We therefore place great importance on partner relationships and open communication with our suppliers. The development of business relationships, which guarantee long-term collaboration, is just as important to us.

As our suppliers' performance heavily influences our own efficiency, we measure, evaluate and support our suppliers according to our own quality standards and our customer requirements.

Only the best suppliers allow us to deliver top performance to our customers.

# Our Employees



Our employees contribute greatly to the company's efficiency, customer satisfaction and success. They are our company's most important resource. Every employee is responsible for the quality and efficiency of their own work. They are aware of this responsibility and always act so that a quality focus begins right from the start. The tasks, responsibilities, targets and development of their skills are agreed upon with each employee to insure that this quality focus is well understood. The following basic principle applies to all members of the GRW team: "The preven-

tion of discrepancies takes priority over the elimination of faults!".

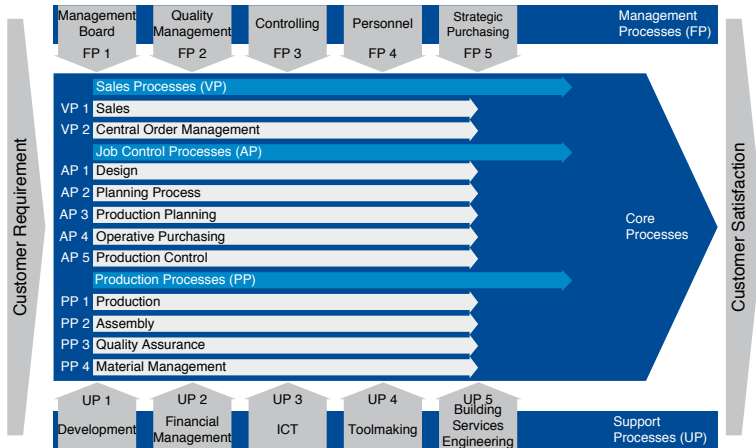
The internal customer-supplier principle is implemented throughout the company on the basis of the process model. This means that in the process structure everyone involved in the process is seen as a customer. External customers and internal process customers are thus treated as equals.

Our employees are the heart of our company.

# Our Processes

## Process Landscape

Stand: 16.07.2010  
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The company group is organized as a quality process organization. All the main activities in the company are represented in a process model and are geared towards meeting customer requirements and achieving high customer satisfaction. In this context we respect efficient process design and live a continuous improvement process.



The processes, as represented in the process model, are divided into three categories:

1. Management processes provide strategic direction.
2. Core processes form the value added chain.
3. Support processes deliver the required service for management and core processes.

Appropriate targets are set for the processes to guarantee efficient and effective

process management. The achievement of these targets is measured continuously using a modern key performance indicator system. Discrepancies are identified immediately. A manager is appointed, who is responsible - for intra-company process design and achieving the process targets.

**Customer satisfaction is always at the center of our processes.**

# Management Responsibility Principles

It is the management board's and employees wish to deliver performance of the highest possible quality and to comply with confirmed deadlines at the agreed upon price. In this regard our principles are defined by the management board in our company policies. Our targets are set annually from these policies. The management board in collaboration with intra- company divisions formulates measurable division targets from the sum of all targets and provides the necessary resources to achieve these targets.

The management board leads by example with commitment to quality and customer focus so that all employees are aware of their personal responsibilities in relation to the quality of our products and services and can act accordingly at any time. The management board also

guarantees accurate communication of customer requirements (as well as environmental, official and legal requirements). Quality targets are set and measured for all processes and levels in the company.

A management review is carried out once a year to evaluate the achievement of targets and the suitability and appropriateness of the management system. A quality manager responsible for all company divisions is appointed by the management board to monitor and further develop the management system and to report the system's efficiency to management.

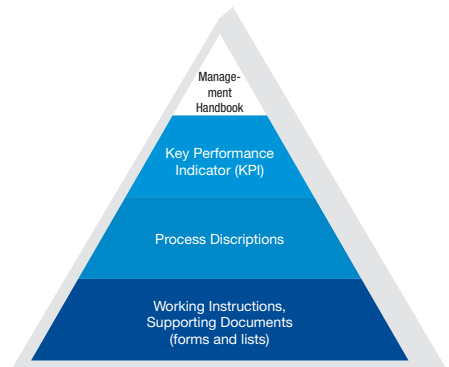
Suitable communication processes are established throughout the whole company.



# Our management system in compliance with DIN EN ISO 9001:2008

Our integrated management system's documentation is divided into four levels based on DIN EN ISO 9001:2008:

1. Management handbook (MH)
2. Key performance indicators (KPI)
3. Process descriptions with responsibilities
4. Implementation instructions (works and test instructions) and supporting documents (e.g. checklists, forms)



This management handbook for customers, employees and suppliers belongs to the first level of documentation. It contains our company principles and policies. The second to fourth levels of documentation on the one hand contain a process dia-

gram with responsibilities, interfaces and interactions and on the other hand key performance indicators and documents which help control the quality of products and processes as well as continuous improvement.

# Product Realization

## Principles



Customer requirements are determined, checked for completeness and documented by sales and engineering staff. This also includes internal expectations not specified by customers. With changes to product specifications the relevant documents are adapted and the necessary personnel are informed. The rules for communication with the customers are cooperatively agreed upon with each customer.

Third-party components and services are systematically selected and continuously evaluated and approved by our strategic purchasing department. Our suppliers' performance heavily influences our own efficiency. Thus, we measure, evaluate and support our suppliers' according to our own quality standards and customer requirements. All outsourced products

and services are exceedingly checked to assure that the quality complies with our requirements.

Using systematic monitoring of our testing and measuring methods we guarantee that all quality checks and manufacturing facilities comply with customer requirements and valid technical standards.

The capacity and efficiency of our processes as well as the availability of our machinery and facilities are guaranteed thanks to systematic methods of process control and preventative maintenance.

# Resource Management Principles



The personnel and financial resources required to implement and improve our management system are determined and provided annually. By involving our employees in the decision making processes they are aware of the significance and importance of their work and their contribution towards achieving company targets. The company provides the resources necessary to deliver high quality performance. In this context, good internal company communication and the systematic training of staff to develop their skills are important. To improve the systematic training of all employees, we have

installed a process which helps to assess employee knowledge and skills at regular intervals and plan suitable training. The implementation and efficiency of this training is monitored and evaluated.

Our infrastructure as well as our demands on employee safety, order, cleanliness and on our work environment comply with our industry's rules and standards.

# Measurement, Analysis and Improvement Principles



By applying a comprehensive key performance indicator system, we guarantee stable processes and validate our management system. In addition our quality department performs periodic audits to insure organizational and process integrity.

To supply our customers with products of exceptional quality, all shipments are closely checked for discrepancies before leaving GRW. Root causes of product and service errors are tracked and eliminated using internal corrective action measures. By this method systemic errors are identified and prevented.

Preventative measures and projects are introduced through continuous quality improvement programs. This prevents the occurrence of manufacturing and process errors. We achieve this through appropriately qualified and trained employees and the consistent application of error prevention methods.

# Innovation Principles





The quality of our products and customer benefits depend on innovative solutions. Using new technologies, new materials, new solutions and new methods is an integrated and dynamic process which is used to evaluate existing production practices until qualified customer solutions can be obtained.

Our research and development department, whose existence is justified by the continuous generation of innovation, is responsible for securing the use of state-of-the-art technology for products, manufacturing processes and materials.

# Our Process Interactions

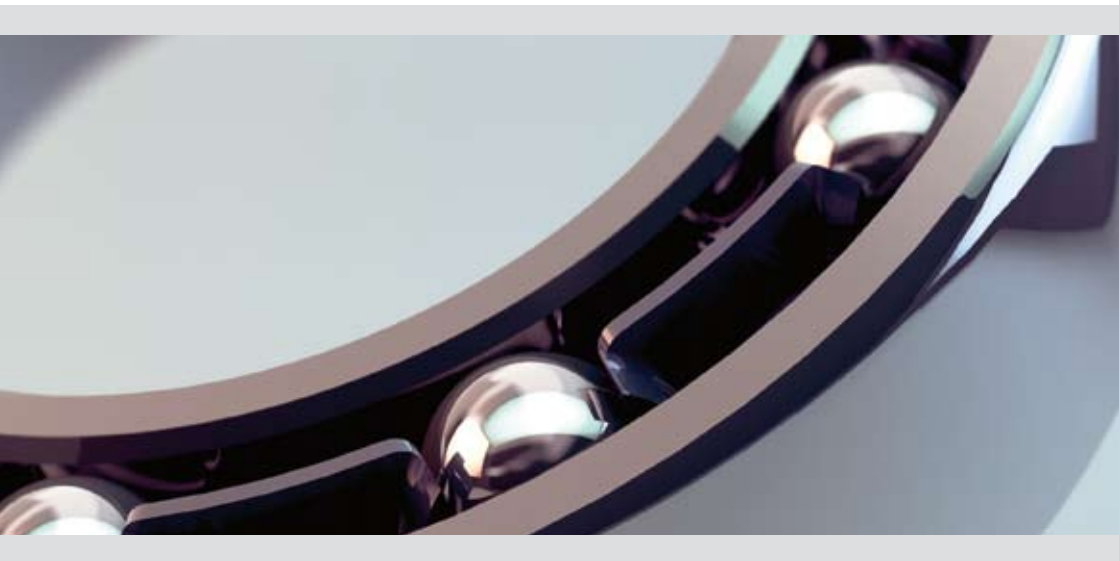
How strong is process Y effected by decisions or results of process X?

- 0 no effect
- 1 light effect
- 2 medium effect
- 3 strong effect

No. of process X	on process Y																				IA interaction	
	FP1 Management Board	FP2 Quality Management	FP3 Controlling	FP4 Personnel	FP5 Strategic Purchasing	VP1 Sales	VP2 Central Order Management	AP1 Design	AP2 Planning Process	AP3 Production Planning	AP4 Operative Purchasing	AP5 Production Control	PP1 Production	PP2 Assembly	PP3 Quality Assurance	PP4 Material Management	UP1 Development	UP2 Financial Management	UP3 ICT	UP4 Toolmaking		UP5 Building Services Engineering
FP 1 Management Board	3	3	3	3	3	1	1	1	2	2	1	3	3	1	1	3	2	2	2	2	42	
FP 2 Quality Management	3	3	1	1	1	3	1	2	2	2	2	1	2	2	3	1	2	0	1	1	32	
FP 3 Controlling	3	1	3	1	2	2	1	0	0	1	2	1	2	2	1	1	2	3	0	1	27	
FP 4 Personnel	2	1	1	3	1	2	1	1	1	1	1	1	2	2	1	1	1	1	1	1	24	
FP 5 Strategic Purchasing	2	1	2	0	3	2	1	0	0	1	3	0	1	1	1	1	1	0	0	1	18	
VP 1 Sales	3	2	2	2	3	2	1	3	2	3	2	3	3	1	1	1	1	0	0	0	34	
VP 2 Central Order Management	1	1	1	0	2	3	2	3	1	2	3	3	1	1	0	1	0	0	0	0	23	
AP 1 Design	1	1	0	1	0	2	1	3	1	1	1	0	2	2	1	0	2	0	0	2	18	
AP 2 Planning Process	0	1	0	1	0	1	1	0	3	1	2	3	3	1	1	1	0	0	0	0	19	
AP 3 Production Planning	2	1	0	1	1	2	0	2	3	1	3	3	3	1	1	0	0	0	0	0	22	
AP 4 Operative Purchasing	1	1	1	2	1	1	1	0	1	3	1	1	1	2	1	3	1	2	0	1	22	
AP 5 Production Control	1	0	0	1	0	1	2	0	1	2	1	3	3	2	1	0	0	0	0	1	19	
PP 1 Production	1	2	1	1	1	1	2	2	1	2	2	2	3	3	2	2	2	0	0	2	31	
PP 2 Assembly	1	2	1	1	1	1	2	2	1	2	2	3	3	2	2	2	0	0	2	1	30	
PP 3 Quality Assurance	1	3	1	1	1	1	1	1	2	1	2	2	2	2	0	1	0	0	0	1	22	
PP 4 Material Management	1	2	1	1	1	1	2	0	2	1	2	2	2	0	3	1	0	0	1	1	21	
UP 1 Development	2	2	1	1	1	2	1	3	1	1	1	1	3	3	1	1	3	1	0	1	28	
UP 2 Financial Management	2	0	3	1	1	2	1	0	0	2	0	1	1	0	1	0	3	0	0	0	15	
UP 3 ICT	2	2	2	1	0	1	1	1	2	2	0	1	1	1	1	0	1	3	0	0	20	
UP 4 Toolmaking	2	0	1	0	0	0	2	1	1	0	1	2	2	1	1	0	0	0	0	0	13	
UP 5 Building Services Engineering	0	1	0	1	0	0	0	0	0	0	0	0	2	2	1	0	0	0	0	1	8	
<b>IA interaction</b>	<b>29</b>	<b>28</b>	<b>21</b>	<b>22</b>	<b>18</b>	<b>29</b>	<b>25</b>	<b>18</b>	<b>18</b>	<b>32</b>	<b>27</b>	<b>24</b>	<b>44</b>	<b>45</b>	<b>24</b>	<b>21</b>	<b>20</b>	<b>12</b>	<b>4</b>	<b>18</b>	<b>9</b>	<b>488</b>

Our responsibility matrix clarifies the integrative nature of our management system. It identifies individual process interactions. The strength of each interaction is weighted between 0 and 3 with increasing importance.

# Our Company Policy



Our goal and objective is to be informed of and meet all customers' requirements and expectations at all times. As a result all company processes are geared towards the needs of both external and internal customers.

Every employee is responsible for the quality and efficiency of their area of responsibility. The tasks, responsibilities, targets and development of each employee's skills are reviewed and agreed upon to form the framework of their assignment. The following basic principle applies to all GRW employees: "The prevention of discrepancies takes priority over the elimination of faults!".

GRW provides the resources necessary to deliver high quality performance. In this context, good internal company communication and continuous employee training are imperative. The internal customer-supplier principle is implemented throughout the whole company, based on the GRW process model.

GRW's efficiency is controlled using process key performance indicators, co-operative interaction and team decisions. The root causes of quality, deadline and cost discrepancies are analyzed and remedied.

Partner relationships and open communication with our suppliers are very important to us. We can only provide our customers with top performance through good collaboration with our suppliers. We measure our suppliers' performance, evaluate and support them according to our quality standards and customers' requirements.

We want to guarantee our company's competitiveness and growth through the continuous improvement of our product quality, flexibility, adherence to deadlines, costs and actions. Every employee is committed to actively working on achieving these well defined targets.

The management system described in the management handbook is used to implement company policy in practice. It is binding for all employees of GRW.

July 2010



Dr. Volker Bartelt,  
Management Board (CEO)

# Strategic Partnership



NIBC Capital Partners is an independent private equity investor specialising in the provision of growth capital for small and medium-sized enterprises in Germany and the Benelux countries. As a partner of SMEs, NIBC offers flexible and tailor-made equity structures and can support high-growth companies as both a majority and minority shareholder. The aim is to optimally position companies for future challenges and to permanently increase company value.

A collaborative relationship and open communication with the portfolio company is important to NIBC. Thanks to the representation of the advisory board and regular shareholder meetings NIBC remains in constant dialogue with management. The aim is to guarantee the company's long-term success and technological leadership in the niche market of high precision miniature ball bearings. To achieve this aim it is essential that management and staff continuously further develop company processes and products.



**GRW**  
**GEBR. REINFURT GMBH & CO. KG**

Niederhoferstraße 105  
D-97222 Rimpar  
Germany

Phone: +49 (0) 93 65/819 - 0  
Fax: +49 (0) 93 65/819 - 100  
e-mail: [info@grw.de](mailto:info@grw.de)  
web: [www.grw.de](http://www.grw.de)

**GRW**  
**HIGH PRECISION BEARINGS LP**

12660 South Fort Street, Suite 201  
Draper, Utah 84020 / USA  
Phone: +1 (801) 495 3216  
Fax: +1 (801) 495 3289

**GRW**  
**REINFURT-ČR k.s.**

Pod Cvrckovem 856  
CZ-38301 Prachatice / Tschechische Republik  
Phone: +420 388 314 319  
Fax: +420 388 310 035

