



# Innovative MES Solutions

for Production,  
Human Resources  
and Quality Management



## About MPDV

Founded over 30 years ago, MPDV is a leading international system provider specializing in capturing and processing data originating in the areas of Production, Human Resources and Quality Management. In addition to our headquarters in Germany, MPDV has offices throughout Europe as well as in Asia and the U.S.

MPDV's core product is HYDRA – the world's leading Manufacturing Execution System (MES). Through HYDRA, MPDV provides an innovative solution for increasing economic efficiency in manufacturing plants. It provides clarity in value-added processes and uncovers hidden process potentials.



## Our Philosophy

Customer satisfaction is one of our most important priorities. Customer requirements and needs are always at the forefront of MPDV's thinking, resulting in the development of new markets and ongoing product innovation. Pride and uncompromising standards of German engineering result in our planning, developing and providing state-of-the-art, trend-setting system solutions.

As a system provider, we are specialists in core business processes and possess superior organizational resources to guarantee consistent and continuous quality in all areas. Our quality management system is certified to the DIN EN ISO 9001:2000 international standard.

## Milestone Developments at MPDV

- 1977 Company founded as an engineering firm developing customer specific hardware and software
- 1984 Initial projects in the field of machine data collection, gradual development of a system for plant data collection, personnel time collection and shop floor planning
- 1988 Standard software developed: Production Management System HYDRA
- 1994 SAP certification for HR and PP interfaces
- 1996 Certification to European Quality Standard DIN EN ISO 9001:2000
- 1999 Establishment of the SAP Competence Center at MPDV
- 2000 Development of CAQ competence through the acquisition of a Quality Systems Supplier
- 2001 First company in the world to receive SAP certification for PDC interface
- 2003 Certification to the Quality Management System ISO 9001:2000
- 2004 Foundation of the MPDV Campus and the MPDV Development Fund (MDF) – Innovation through close collaboration with research institutions and universities
- 2005 SAP certification for "Powered by SAP NetWeaver"  
First validation of HYDRA on the basis of FDA-requirements  
MPDV became board member of MESA International
- 2006 MPDV Pte Ltd. subsidiary established in Singapore  
Development of an ROI-Analyzer for MES solutions  
Leading role of MPDV in founding MESA Europe
- 2007 MPDV USA, Inc. subsidiary established in Chicago  
Further SAP certifications (QM-IDI interface and xMII applications)  
Launch of MES-Cockpit  
500<sup>th</sup> HYDRA-MES ready for production
- 2008 Launch of new product line xMES as an integrated SAP application

## HYDRA as Manufacturing Execution System

As a Manufacturing Execution System (MES), the name HYDRA is synonymous with vertical integration between manufacturing and management levels. It closes the gap between the technically oriented platform of machines and equipment, and the more commercially oriented world of ERP and management systems.

As an integrated, modular system solution for production, human resources and quality management, HYDRA provides a smooth flow of information. It also performs important functions in the areas of recording, evaluation and planning - making information available to line managers and production schedulers at the push of a button.



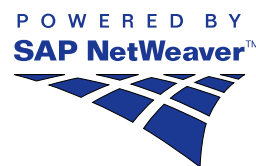
Take advantage of HYDRA's numerous benefits to streamline your tasks:

- Interfaces with common ERP, HR and TQM systems
- Interfaces with machines, equipment and measuring devices
- Simple configuration and functional customization
- Online recording and processing of your data
- Industry independent standard solutions
- Integrated system concept
- Modular structure

## HYDRA Connectivity

The HYDRA solution works with standardized, configurable interfaces, allowing seamless integration into an existing IT environment. Interfaces with ERP, TQM, HR and warehouse management systems are an integral part of this solution. As a result, HYDRA guarantees prompt forwarding of registered and preprocessed data from the areas of production, human resources and quality management.

HYDRA provides certified interfaces to SAP systems in a specially developed manner which ensures smooth data exchange with SAP modules via these interfaces. MPDV, which has been a Complementary Software Partner of SAP for many years, has comprehensive knowledge of SAP applications and substantial integration and interface know-how.



Complete integration into the production environment is essential for the efficiency and acceptance of production management systems. HYDRA allows for manual entry of data via shop floor terminals or can collect data from machines, equipment, scales or other peripheral installations automatically.

Along with data recording, HYDRA's support of production means less paperwork. Machine operators and line managers can retrieve important information such as bills of material, inspection plans, work instructions, drawings, etc., directly at the shop floor terminal.

## HYDRA: Solutions for all Types of Businesses

HYDRA has a vast range of functions and capabilities for configuration that can be used by all industries. HYDRA is adaptable to use with standard software (proven in hundreds of installations worldwide), and dovetails with the tailor-made functionality of industry solutions. With companies today using multiple production processes, the industry independent character of HYDRA is especially advantageous.

Currently, HYDRA is used in the following industries:

- Plastics / vulcanized rubber
- Metals industry
- Automotive manufacturers and suppliers
- Food and beverage
- Plant and machine engineering
- Furniture and wood products industry
- Printing and packaging
- Precision mechanics and optics
- Electrical engineering and electronics



## Some Key MPDV Customers



Today, companies of all sizes and in a wide range of industries benefit from HYDRA. It is used worldwide by medium-sized manufacturing companies as well as large industrial groups operating internationally.

## HYDRA for Production

Use the versatile functions of HYDRA to optimize your manufacturing processes if you:

- Want to reduce stock and work in progress (WIP)
- Need to reduce setup costs and interruption periods
- Would like to increase capacity, utilization and effectiveness

### Increase Transparency of Your Production Orders

Trace and monitor orders, including all operations, completely and logically. Precise details of the status of an order and its progress are available for objective analysis and cost control.

### Increase Transparency of Machine Interruption and Efficiency

Automatically monitor machines - completely and continuously. Current information is displayed, reporting the latest status (e.g. a machine that is close to completion).

### Improve Shop Floor Scheduling

Plan orders with knowledge about the resources required and available (machines, people, material and tools). Immediately know the impact of modifications on planning, machine disturbances and missing resources.



### Improve Material and Production Logistics

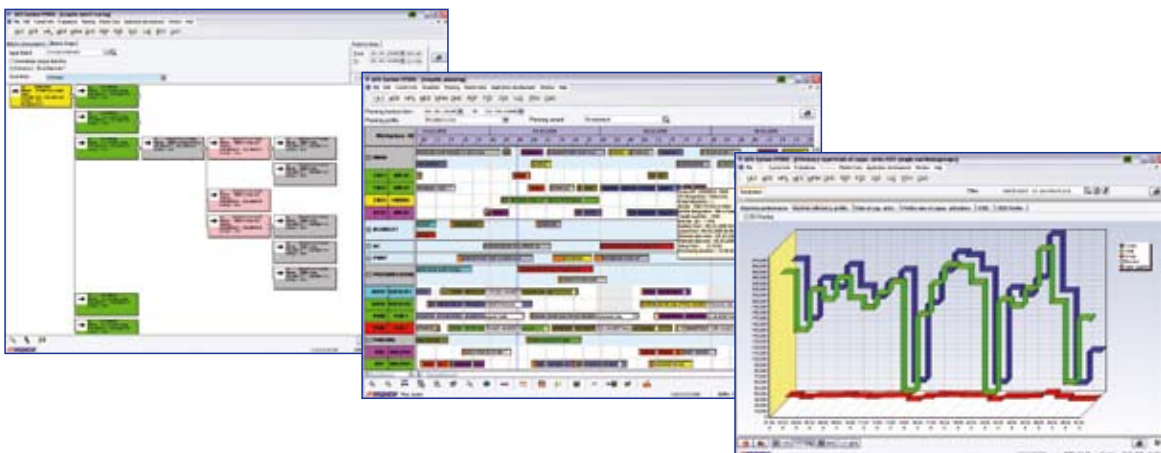
Supervise and control the flow of material beyond production, intermediate storage and all material buffers. You can document the origin of your products via integrated charge and batch tracing (traceability) and receive complete verification of your products.

### Enhance Tool and Resource Management

Manage and plan tools and resources quickly, efficiently and comprehensively. HYDRA provides a historical maintenance record of your tools and schedules their future maintenance.

### Improve DNC Operation

Transfer your NC programs via the existing infrastructure of plant data collection. Thus, the correct setting data is available on the machine at setup.

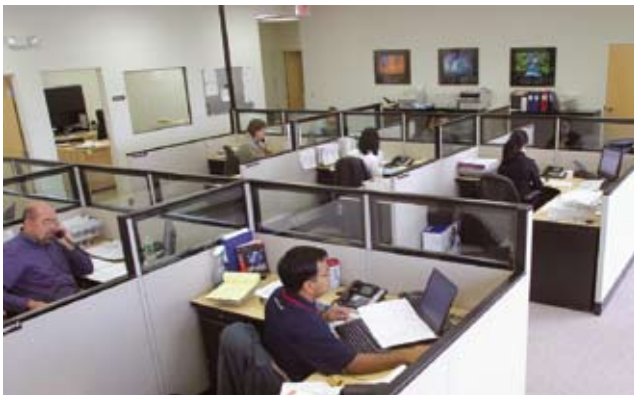


## HYDRA and Human Resources

Flextime and performance related compensation is now common in many companies. Employees expect increased benefits and employers expect increased profits. However, efficient systems for personnel resource planning, time recording, time management and incentive wage determination are essential to effectively realize the potential of improved flexibility.

HYDRA provides support on a daily basis through:

- Effective planning, management of work schedules and compensation
- Recording and calculating performance related wage data
- Controlling access to doors and entrances to your company



### Improve Personnel Time Collection

HYDRA records your employees' times of attendance and absences. If requested, integrated time management computes the wage types of each employee on the basis of your individual compensation models.

### Improve Personnel Resource Planning

With HYDRA, you plan your personnel capacities based on order requirements, consideration of employee qualifications and availability.

### Improve Incentive Wage Determination

Using HYDRA, you obtain objective, reliable and consistent data needed for determining performance related compensation of your employees. This can be accomplished with data that is automatically made available via HYDRA order data management and personnel time collection.

### Increase Access Control

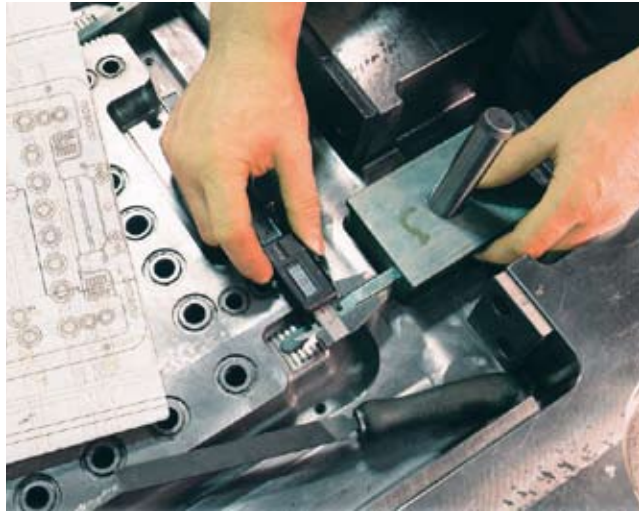
With HYDRA, you manage access authorizations of your employees and visitors.



# HYDRA for Quality

The true importance of quality becomes apparent when it is missing. Lack of quality rapidly leads to dramatic consequences; dissatisfied customers, sales shortfalls and a damaged reputation, which in most cases cannot be restored. HYDRA-CAQ helps to monitor and maintain your quality.

HYDRA-CAQ is future-oriented software that excels through its modularity, user-friendliness and numerous evaluation options. You can use HYDRA-CAQ as an isolated application for the sole purpose of quality assurance or it can be used as an integrated solution along with other modules of HYDRA such as production and human resources, all integrated on one platform.



### Improve Inspection Planning

With HYDRA and production planning, you establish the conditions for efficient manufacturing and inspection of products to meet given requirements.

### Improve Inspection Data Collection

By using HYDRA, inspection data collection becomes child's play: simple, quick and efficient. A special feature – if HYDRA-BDE is also used, machine operators can register production and inspection data at the same terminal or computer.

### Improve Complaint Management

Your complaints are registered, assessed and analyzed by HYDRA. By following a defined workflow, you monitor the complaint procedure and the assignment of tasks, measures and actions. The escalation manager supervises adherence to time limits and deadlines.

### Improve Supplier Evaluation

The ability to choose and maintain a business relationship with the “right” supplier becomes a decisive competitive advantage with HYDRA. It starts with the identification of potential suppliers and comprises basic analysis of the most important decision criteria and processing of edited data.

### Improve Gage Management

Compliance with quality requirements can only be achieved with proper gauges. Numerous opportunities for cost reduction result from using HYDRA in your company, and can be realized by structured recording and supervision of test equipment.



**Our customers work worldwide – and so do we!**



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