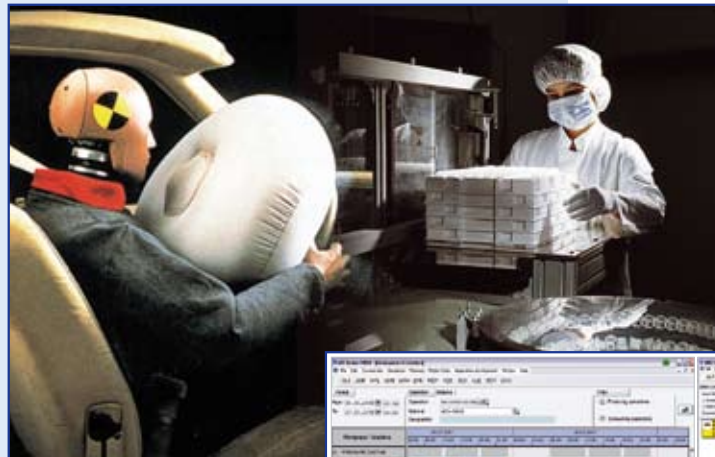


HYDRA-Material and Production Logistics



- Tracing of products and batches (Tracking, Tracing)
- Detailed documentation of the production process
- Recording of material and batch data
- Control and monitoring of material flow
- Management and surveying of inventories
- Special solutions for coil-based manufacturing
- Interfaces with ERP, TQM and warehouse management systems

PRODUCTION

HYDRA-Material and Production Logistics

Transparency in Material Flow and Product Tracing

For many companies, providing complete evidence of items produced throughout all steps of the process chain, is a daily necessity. As a result, the traceability of finished products or the where-used list for integrated resources must be guaranteed for consumer protection purposes in the event of complaints. International norms such as FDA regulation 21CFR11 or the 178 EU norm give little scope especially to the food and drug industry. The suppliers of packaging materials and manufacturers of automotive parts relevant to safety are subject to similarly stringent requirements.

Manual data collection and paper-supported documentation or archiving, necessary to comply with legal requirements, are prohibitively expensive and so cannot be justified economically.

The material and production logistics (HYDRA-MPL) HYDRA-module meets the versatile requirements of a batch tracing solution (Tracking, Tracing). Moreover, HYDRA-MPL offers a number of functions for related areas such as material flow and inventory which can be activated accordingly, if required:

Data Collection

- Complete recording of batch information starting at goods receipt, via production, to shipment
- Entry of raw materials used, semi-finished products and auxiliary materials
- Registration of batch changes during production
- Recording of batch-related quantities and times
- Receipt and issuance of postings of material based on material buffers

Practice-Proven Functions for All Areas

Planning and Forecast

- Generation of batch numbers or adoption from ERP
- Development of inventory for different planning situations
- Estimation of remaining materials during running production
- Appearance of warning reports when the expiration date is reached; expiration preview indicating how much material expires at what time

Current Overviews

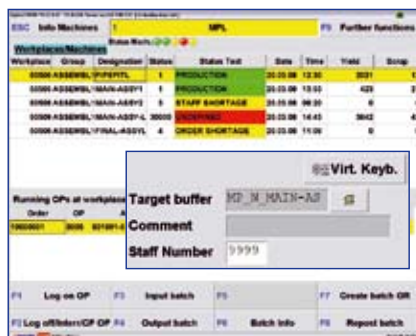
- Current status of batches (in production, free, blocked, expired, under test, transport, etc.)
- Inventory including status display
- Stock overview of transport units
- Current material requirements for orders and machines
- Graphical displays of material flow

Evaluations / Documentation

- Complete batch history
- Tabulation and graphical display of batch tracking (up- and downstream) with navigation functions
- Expiration statistics
- Long-time archiving of data including export and import to / from external data media

Printing Functions

- Printing of individually designed accompanying documents and labels for ticketing pallets and other transport boxes
- Printing of transport labels with number of shipping unit and bar codes based on EAN128



HYDRA: One System for Everything

Basic Functions

HYDRA-MPL is a practice-proven and modular structured system that offers many additional basic functions:

- Master data administration for materials, material types, material buffers, maximum stock and batches
- Cross-plant considerations of inventory



- Interfaces with ERP, TQM, warehouse management and materials management systems
- Multi-level authorization and user concept
- Extensive functions for system administrators, e.g., programs for data backup and archiving.

Integration in HYDRA

Using HYDRA-MPL as an integrated module of the HYDRA MES-system provides many benefits for the user:

- Information on material and batches is also available in production data collection. As a result, input effort is reduced, no additional hardware is needed and there is instant recognition of which batches were produced and which materials were used in specific orders.
- If quality inspections are necessary for a product, the integration into HYDRA-CAQ (Quality) enables assignment of measurement, inspection and quality data directly to the batches.
- The quantities determined within production data collection automatically update material and warehouse stocks. Consequently, complex retrograde postings are no longer required.

MPDV Mikrolab GmbH

Römerring 1
74821 Mosbach
Germany
Fon +49 (62 61) 9 20 9-0
info@mpdv.de · www.mpdv.de

MPDV-Locations:

Mosbach · Hamburg · Hamm ·
Heidelberg · Munich · Stuttgart ·
Winterthur / CH · Amboise / F ·
Chicago / USA · Singapur / SGP

© 2009 MPDV Mikrolab GmbH
Doku-Ident: PRMPL-ENG 06/2009

The mentioned product names are trademarks of the respective producers or suppliers. HYDRA® is an entered trademark of MPDV Mikrolab GmbH.