



Solutions for Warehouse and Traceability



Doeet is one of the leading Industry 4.0 solutions for industrial digitalisation, production control, productivity improvement and cost reduction.

Doeet collects your manufacturing data in real time: production, productivity, quality, traceability, costs, maintenance and analyzes machine and operator information: downtime, units produced, consumption, scrap, wastage and rejects.



More than

20

years of
experience

More than

40

consultants
and technicians

More than

400

customers

Solutions for Warehouse and Traceability

Doeet's traceability modules and functions allow **complete control of the batches and consumption of raw materials** used in each production order.

With the advanced traceability functions we obtain **complete traceability, from the receipt of raw materials to the dispatch of the finished product.**

Connect your ERP with doeet to send work orders to the production plant and **know their status and consumption in real time.**

Manufacturing guides, document and mould management will prevent manufacturing defects by **controlling the stages of the recipes and processes** of the operator or the status of the tools.

Among the doeet **Solutions for Warehouse and Traceability** we highlight the modules and functions of **Traceability System, Advanced Traceability, MES/ERP Integration, Good Manufacturing Practice, Documentary Management and Molds and Tooling Control.**





TRACEABILITY
SYSTEM



ADVANCED
TRACEABILITY



MES/ERP
INTEGRATION



GOOD MANUFACTURING
PRACTICE



DOCUMENTARY
MANAGEMENT



MOLDS AND TOOLING
CONTROL



TRACEABILITY SYSTEM

The doeet traceability system controls your batches, raw material consumption, manufactured products, scrap and wastage.

Traceability system with **control of batches and consumptions**

Doeet counts the number of units produced directly from the PLCs of the machines and records the batches of raw materials consumed for each item.

Both the factory manager and the machine operator can regulate defective raw materials or those that do not meet the optimum requirements for production.

Number your **crates, pallets, rolls, reels, coils**

The traceability system adapts to any format or storage method. Doeet allows us to control pallets, semi-finished products, boxes and any handling unit used in the storage and logistics of the manufactured product.

Doeet counts the units of items produced and the resulting quantity of finished products. By connecting a scale to the system, we can record the weight of each product or semi-finished product.

- Control your finished or semi-finished product units.
- Control your consumption in real time.
- Regularize your scrap and your scraps in a few clicks.
- Control the pallets, coils and cases produced.
- Digitalize your production parts.



Record the shrinkage and defective raw materials

Regularize the total amount of raw materials consumed and allocate in real time the shrinkage detected in production.

Doeet allows you to quickly record the causes of raw material wastage to minimize waste and avoid the production of defective units.

Analyze the causes of scrap production

Review the number of non-conforming units produced and allocate at the machine level the units discarded due to scrap and the cause of the scrap.

The system generates a report with the causes of scrap and allows for analysis of the reasons for the lack of quality, to apply improvement techniques to solve them.

Link your consumptions and your manufactured product

Know the number of units produced from a given batch of raw materials. Also calculate the items you can produce with your current stock.

For each consumption we add a multiplying factor that relates the quantity of product manufactured to its consumption, simplifying the regularization and recording of production.

FUNCTIONS

- ✓ Record the total number of units produced.
- ✓ Record the batches of raw materials consumed in each order.
- ✓ Counting of total units of finished manufactured product.
- ✓ Scrap allocation to production.
- ✓ Imputation of shrinkage to raw materials.

TRACEABILITY AND CONSUMPTION CONTROL AT THE OPERATOR HMI





ADVANCED TRACEABILITY

Locate each unit, box or pallet with the product traceability and know its origin, quality and manufacturing status.

A complete **product traceability system**

Locate any product unit at any time and know exactly where it is located in the warehouse or in the factory plant. This makes storage and picking simple and efficient.

Control your stock of both raw materials and manufactured products, their batches, their status and any other data required in production.

Full traceability **from receipt to dispatch**

Registering all your raw materials from the warehouse allows you to control their **complete traceability**: origin, source, initial quality, weight and any other relevant associated data.

Doeet controls the complete route followed by each item in the factory plant, **from receipt to dispatch**. Each stage, process or operation is recorded.

- Control your forward and backward traceability.
- Avoid errors and incidents in raw material batches.
- Manage storage and picking effectively.
- Control all your stocks in real-time.



Calculate your **raw material yield**

The raw material yield report allows you to **know the actual and exact amount of raw materials wasted during the production process**. In this way, we can detect high or unjustified consumption of raw materials and take action to improve efficiency and reduce costs.

The **mass balance** indicates the number of units produced and raw materials consumed. **Raw material yield** relates to the utilization of raw materials and the finished product.

Automate your **labeling**

Doeet connects to in-plant labellers to **instantly print the labels associated with each semi-finished or finished goods manufacturing order**, with all relevant information for manufacturing.

Customize your labels with the tokens and auxiliary data you need: weight, category, calibre, and grouping. The system can **generate standard GTIN13, QR, RFID barcode labels**, etc.

FUNCTIONS

- ✓ Real-time raw material stock control.
- ✓ Actual location of the semi-finished and finished products.
- ✓ Digital record of the operations performed on the product.
- ✓ Full traceability from receipt to dispatch.
- ✓ Automatic label printing.
- ✓ Mass balance control of raw materials.
- ✓ Visual warehouse.

Record your **actual consumption**

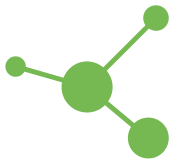
The doeet traceability system is **fully integrated with the production plant**. Through its connection to scales and operator HMIs, it is possible to know in real time the quantity and units that have been produced and consumed with accuracy.

Complete and **paperless digitalization**

Operations carried out in the factory, such as **receipt of raw materials, industrial registrations or warehouse movements**, can be automatically or operator-assigned at the terminals. These data are used for the generation of automatic traceability reports, which can be used to improve production processes or to perform queries.

In this way, all information is recorded in the system and we can eliminate all paper documents in the factory plant.





MES/ERP INTEGRATION

The MES ERP integration allows sending work orders and knowing their status and consumption in real-time.

MES system with ERP integration

The MES ERP integration of the doeet MES system allows companies to **improve reaction times and avoid rework** in terms of allocating consumption and hours spent on each work order.

By connecting these systems we obtain **production data in real-time, reliably and objectively**, and the production reports are **100% digital**.

Send the day's production orders to each work centre

Doeet collects from the ERP the **information required in production** and sends it to the operator terminals at the machine.

All the data necessary for production are associated with the order: **article code, units, theoretical production times or machine parameters**.

- Send orders to be manufactured directly to the operator in the factory plant.
- Know in real time the status and actions performed for each work order.
- Automatically receive in the ERP all data collected in order.
- Anticipate the supply of materials by knowing the actual consumption.
- Eliminate paper generated by the management of production orders.



Upload consumption, labels and working documents

Attach to each order the details of the batches and expected consumption of raw materials or semi-finished products. This way you can control your stocks and obtain complete traceability.

Send with the order the labels to be printed with all the details of the order, and any other data that may be required in production.

Modify work orders and communicate them instantly

Sometimes we need to reorganize production and meet unforeseen orders or emergencies. Doeet allows partial closures of work orders to execute the next one or another with higher priority.

Send order modifications with one click and they will be instantly visible to managers.



FUNCTIONS

- ✓ Import of manufacturing orders to MES doeet from ERP.
- ✓ Import of consumptions, labels and documents associated with the order.
- ✓ Real-time data back to ERP: order status, costs, raw material consumption, quality.
- ✓ Automatic loading of orders.
- ✓ Sending manufacturing parameters and incidents to the ERP.

MES ERP integration with real-time order status

Doeet collects plant production data and returns order status to the ERP in real-time. This enables you to know at all times which orders are planned, in process, completed, on hold or blocked to react quickly.

Know the actual raw material consumption and production times for each order to analyze any discrepancy with the theoretical times in the production reports.





GOOD MANUFACTURING PRACTICE

Avoid manufacturing defects by indicating your good manufacturing practice, checks and processes to the operator.

Create a GMP for each recipe

Register a guide for each reference you produce. Establish the progressive stages to be completed and indicate and groups all fields, required or optional, such as checks, machine parameters, weight records or batch allocation.

Release a standard of good manufacturing practice to enable its use in the preparation or mixing room. Only qualified personnel may release and sign a guide. **Version control** provides the most current version of each recipe or preparation.

Verify compliance with good manufacturing standards

Check if the steps of each GMP have been completed and **validate the imputed records in each production order**.

Check through the reports generated the date on which the guide was activated, who has performed the controls and their level of compliance.

- Create the recipes with the steps to follow for each item.
- Control every step of your production processes and recipes.
- Manage the roles and users involved in each recipe.
- Avoid traceability errors in raw materials and semi-finished products.
- Review the compliance of each stage with its associated records.



Assign guides to processes, machines or users

We can assign a specific guide to different sections, machines, articles, and processes, or indicate that they should be started every certain number of units manufactured, minutes or hours.

An automatic prompt on the operator's terminal will indicate to complete the steps in the guide at the indicated time.

An additional layer of quality

Establish the stages of the manufacturing guide for each item or reference so that a specific quality control form is activated in each of them.

Manufacturing guides are a layer of control to avoid errors in the preparation of recipes and semi-finished products.

Warn the operator if he has pending steps

If any step of the guide is not completed, doeet highlights a warning on the terminal with the actions still to be performed.

If the steps are mandatory for the recipe, the system does not allow you to finish the guide without entering the relevant data.

FUNCTIONS

- ✓ Structured monitoring and control of all the factory's production processes.
- ✓ Definition and assignment of recipes and manufacturing guides and their stages to each reference.
- ✓ Generation of the controls to be completed by the operator.
- ✓ Fulfilment of the stages in the terminal at the plant.
- ✓ Validation of the controls by the plant manager and/or quality manager.





DOCUMENTARY MANAGEMENT

Link text or multimedia files to orders, machines and items and facilitate document management to the operators.

Link documents to **orders, machines or items**

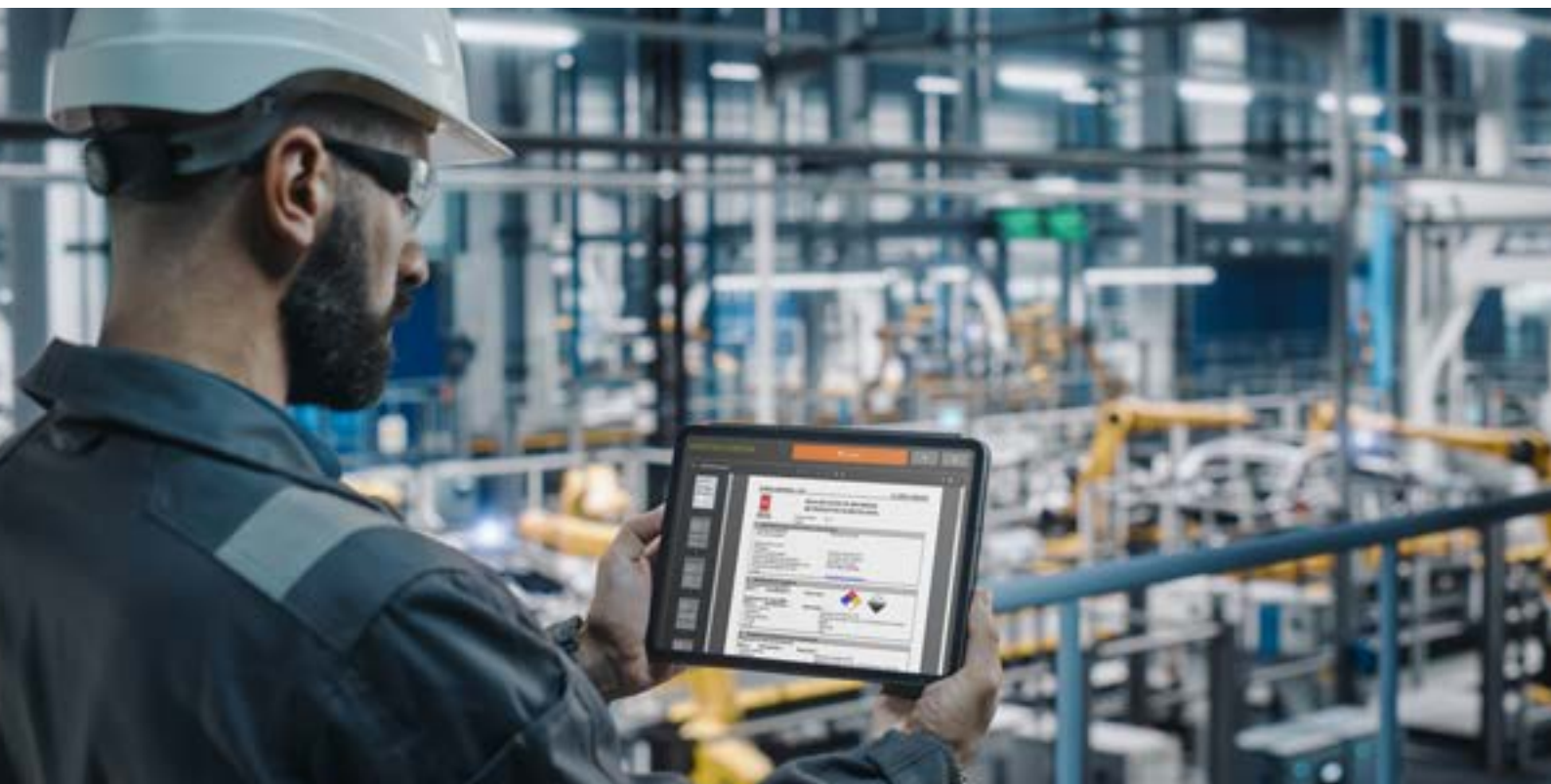
Select the **order, machine or item** to which you want to attach a document, access the file drop-down menu and indicate the **local or internet path** where the document is located.

Indicate an expiration date to set a deadline by which the file will be available. We can **associate documents with final, consumed or processed items**.

Link **text, photos and multimedia**

The doeet document management system allows you to associate files of any format with production: **PDF manuals, JPG or PNG photographs, videos or multimedia presentations**. A specific viewer will display the document on the screen or the operator's HMI.

- Avoid the loss of documentation by integrating it into a single system.
- Unify all documents and avoid wasting time searching for them.
- Establish a secure and certified document lifecycle.
- Allow access control and document security.
- Eliminate paper consumption in the production plant.



Accessible from the operator terminal

Facilitate the communication and consultation of documentation by the operators at all times. The operator can consult **from the terminal in the plant or any mobile device** the documents required for the performance of his task.

The system has a **reading log** that adds a mark to the documents to know if they have been read.

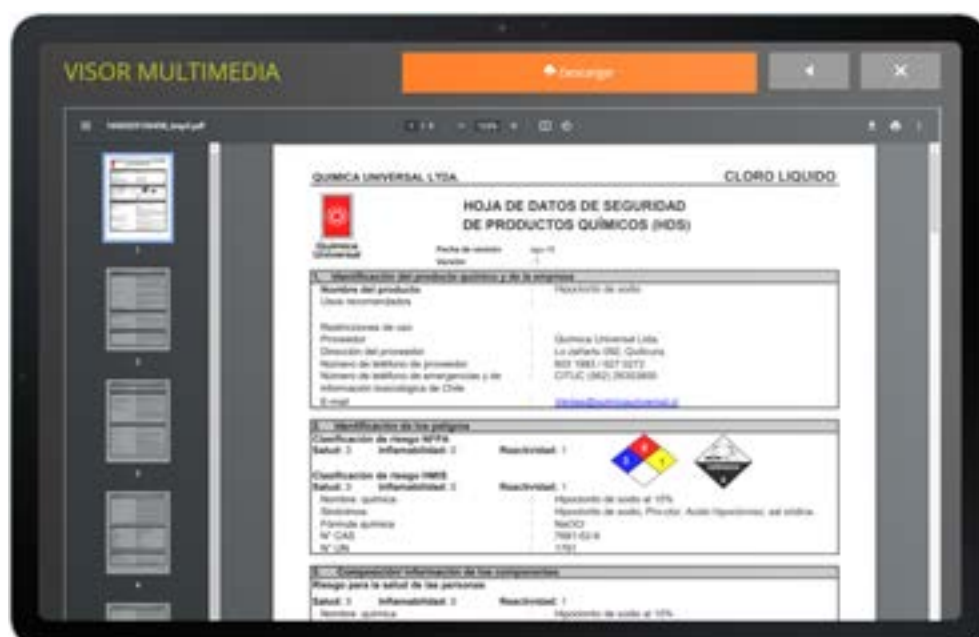
Eliminate paperwork in the factory and avoid errors

Companies and organizations generate a large number of documents, electronic or paper, related to production. Our document management system allows documents to be **distributed quickly and efficiently** to each operator or machine and **avoids errors due to erroneous or obsolete documentation**.

Version control distributes the most current version of each document. We can lock the file so that no one can make changes without the proper permissions.

FUNCTIONS

- ✓ Uploading all types of documents to the system.
- ✓ Association of any type of document or format (PDF, photos, texts, videos).
- ✓ Association of documents to orders, machines or references.
- ✓ Display of documents on the operator's HMI.
- ✓ Document version control.





MOLDS AND TOOLING CONTROL

Manage auxiliary tools with molds and tooling control, and apply the poka-yoke system in the factory plant.

Register your molds and tools

Record each of the tools used in your production processes. Indicate for each one of them its **registration number**, the **date of registration** and the **maximum number of parts or hours** it can manufacture.

Record the wear and tear of each tool

Doeet records the number of hours each tool has been used and the number of parts it has produced. In this way, we will only replace the tool when it has reached its **wear limit**, to avoid the production of defective units.

Your tools organized

Create a **tooling plan** to group the tools used in your production processes according to their specific characteristics and apply the **5s methodology**, to achieve better organized, tidier and cleaner workplaces, higher productivity and a better working environment.

Group all the tools by machine to facilitate optimal tooling control on the factory plant.

Poka-yoke system to avoid assignment errors

When loading an order into a machine, a prompt will indicate to the operator whether or not the molds being used are compatible with the machine. In this way, it **will not be possible to start manufacturing orders with incorrect molds**.

- Register and enrol all your tools and molds.
- Take total control of your tools digitally.
- Replace your molds and tools before their wear limit.
- Avoid manufacturing errors due to the use of wrong molds.



FUNCTIONS

- ✓ Registration of tools and tooling required in the plant.
- ✓ Registration of injection molds and presses.
- ✓ Control of the hours and parts produced with each molds or tool.
- ✓ Poka-yoke system to avoid assignment errors.



DIGITALIZE YOUR PRODUCTION

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