

Turning complex technical systems into clear, structured, and usable documentation and functional visualization.

Functional Technical Illustration – Selected Examples

For complex systems in engineering and industrial environments

Structuring, analyzing, and translating complex technical systems into clear, scalable documentation and functional visualization.

Development and evaluation of technical documentation systems and information architecture.

Focus: Structure · Consistency · Scalable documentation systems

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Functional Technical Illustration – Selected Examples

Technical illustration is not a decorative element – it is an integral part of functional documentation.

It translates complex systems into clear, structured, and practically usable visual representations that support understanding, decision-making.

This portfolio presents selected examples in which systems from mechanics, electronics, and software are visualized with a strong focus on clarity, structure, and functional communication.

Focus

The focus is on a systematic understanding of technical relationships and their precise, clear and precise presentation.

The goal is to structure and visualize information in a way that enables fast orientation while conveying a deep understanding of functions, processes, and dependencies.

Technical Illustration & Vector Drawing

(CorelDRAW, Bézier curves)

All illustrations and vector graphics were fully developed, designed, and executed by me based on real technical systems and assemblies, with a strong focus on clarity, structure, and functional communication.

A strong emphasis is placed on working with Bézier curves in CorelDRAW to ensure precise, scalable, and reproducible visual representations suitable for professional documentation environments.

Note on Presentation

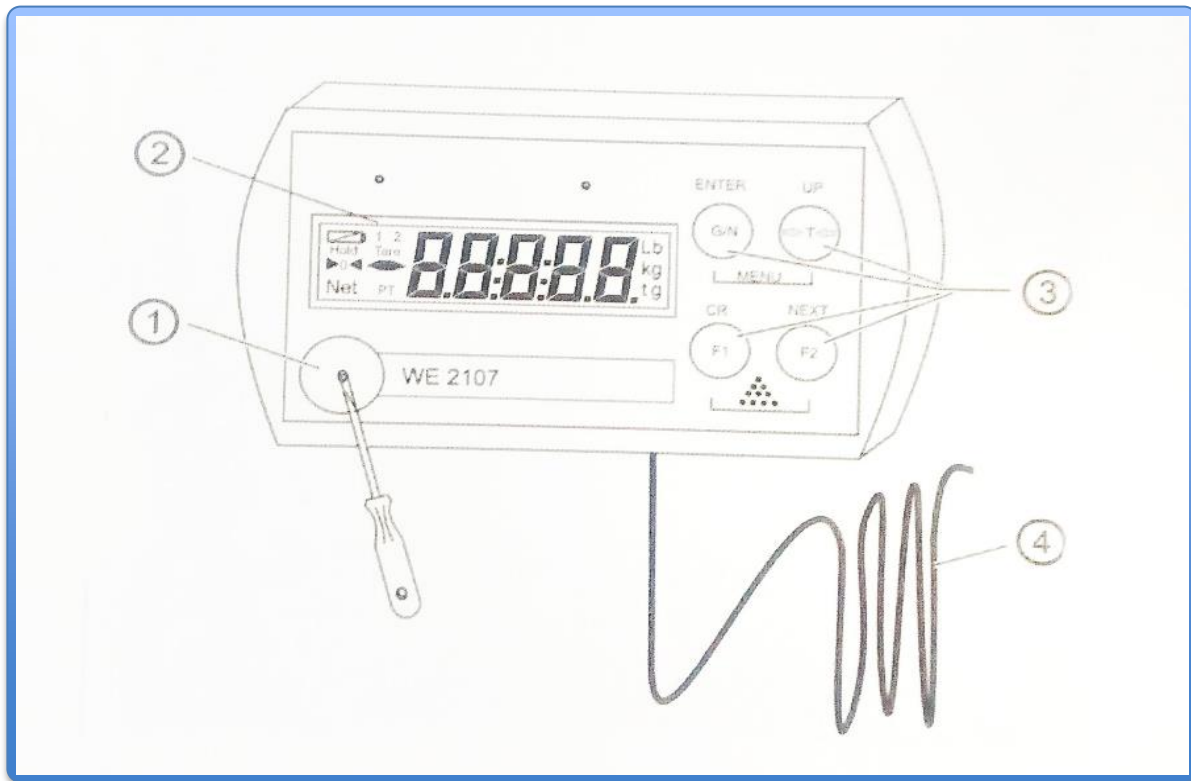
For optimal display within this portfolio, the images shown have been exported as JPG files from original vector sources.

This ensures consistent rendering across different devices and platforms.

The underlying illustrations are based on editable vector formats and are designed for long-term use in scalable, professional documentation systems.

1. HBM Scale

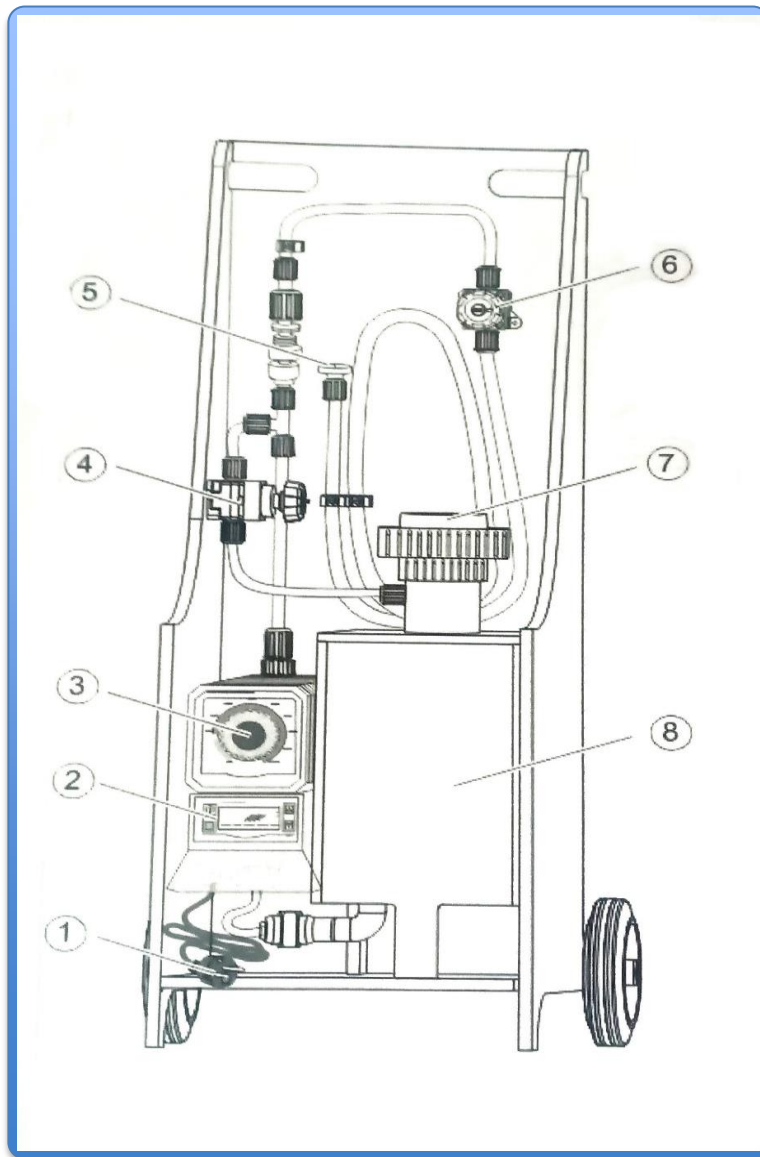
HBM Scale – Interface & Operational Logic



Functional visualization of device interface and control logic.
Clear mapping of user interaction and system response to support intuitive operation.

2. Dosing Cart – Overview

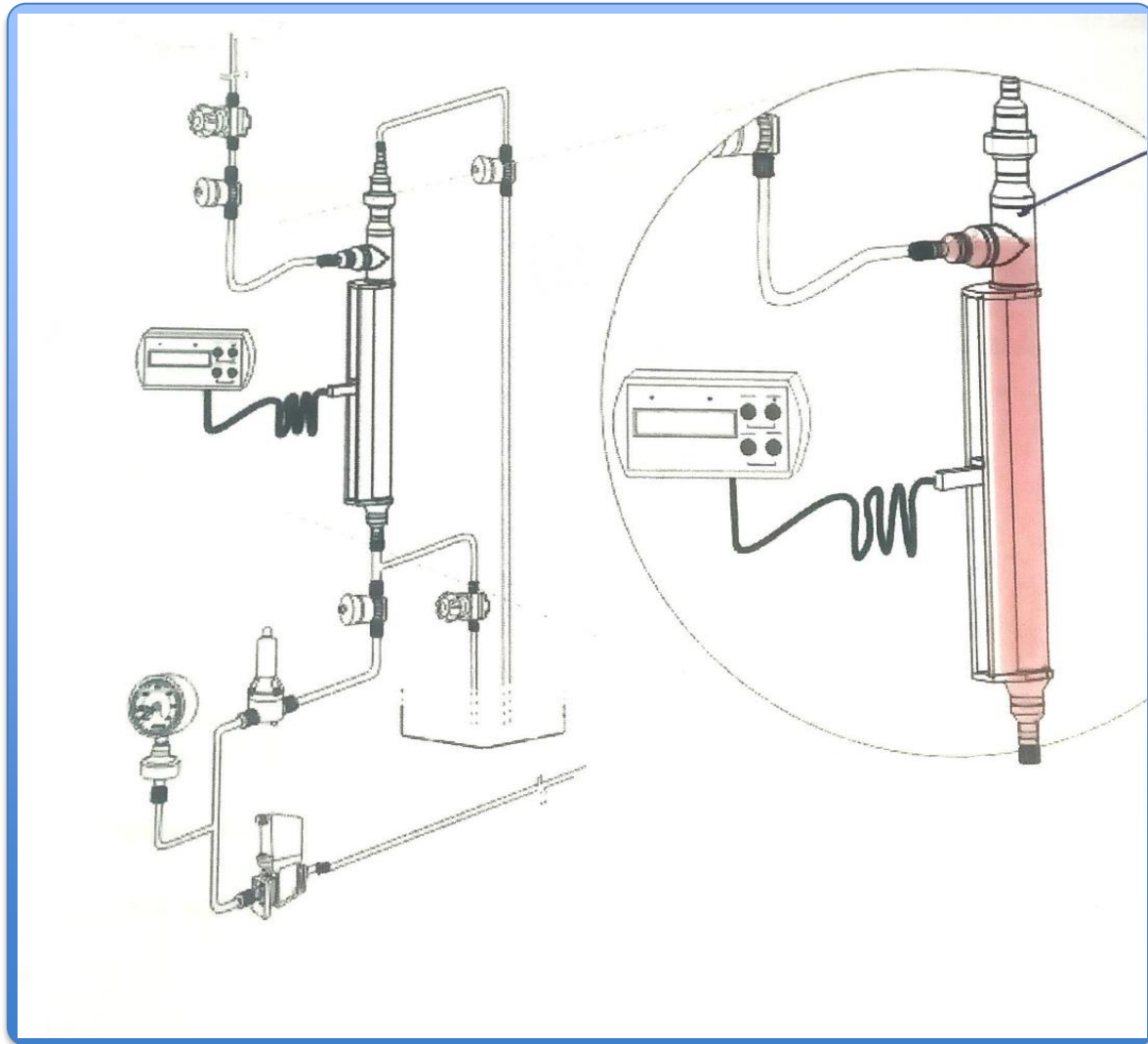
Dosing System – Structural Overview & Component Logic



Structured visualization of a complete dosing system with clear functional grouping and clear identification of system components. Designed to support installation, operation and maintenance contexts.

3. Dosing System

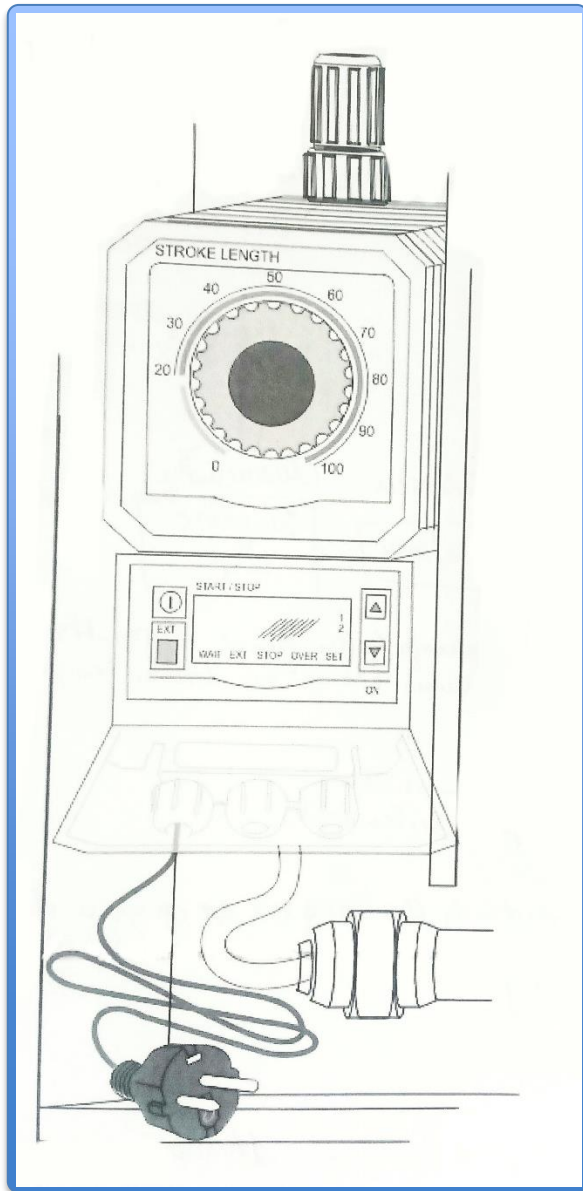
Dosing System – Structural, Piping & Detail



Structured visualization of a complete dosing system including piping layout and functional grouping of components. Detail view highlighting key elements and system integration.

4. Membrane Dosing Pump

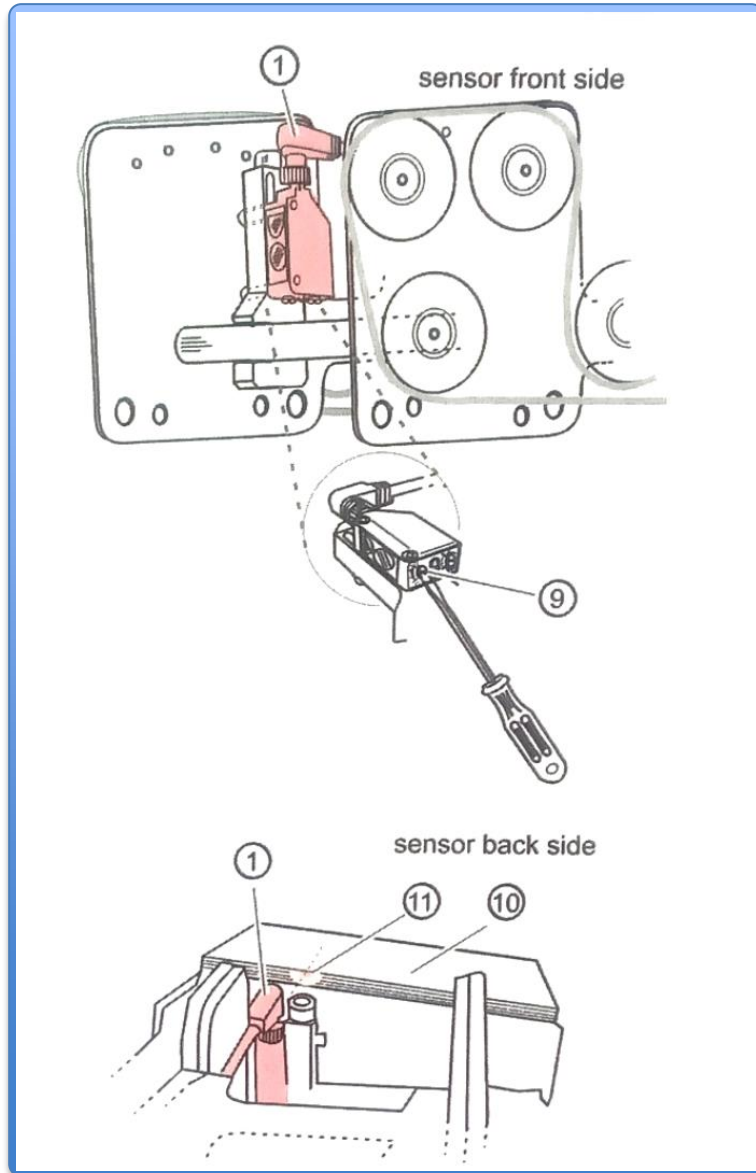
Membrane Dosing Pump – Functional Structure & Control



Visualization of control elements and functional zones, supporting clear interaction and operation. Separation of system areas and interfaces for improved usability and parameter control.

5. Sensor

Sensor Integration – Positioning & Functional Context



Structured visualization of sensor placement within a complex system, supporting clear interaction and process flow. Separation of functional context and interfaces to improve usability and troubleshooting.

Profile Summary

Structuring, analyzing, and translating complex technical systems into clear, scalable documentation and functional visualization.

I transform fragmented or complex information into structured, usable documentation systems – supported by functional diagrams and system-oriented visualization.

I work across engineering, documentation, and system logic – with a focus on clarity, structure and deep system understanding.

Key Focus

- Structuring complex technical documentation environments
- Improving system understanding through functional visualization
- Bridging engineering, documentation and user perspective

Technical illustration is part of the documentation system – not isolated graphics.

Not focused on visual design – focused on clarity, structure, and system understanding.

Interpretation

Typical indicators of structural deficiencies:

- Content exists but is not effectively usable
- Information must be searched repeatedly
- Knowledge is highly dependent on individuals
- New content is difficult to integrate and scale

Assessment

Technical documentation delivers its full value when it is structured, clear, and systematically organized.

Approach

The approach focuses on structured analysis and targeted development of documentation systems in complex technical environments.

The goal is to create clear, consistent, and maintainable structures that make information understandable, usable in the long term, and scalable across systems and teams.

Additional Materials & Contact

Selected work samples are available upon request.

A broader portfolio, including structured documentation examples, technical illustrations and system-oriented content development, is available via:

- hid-digital.com
- [Malt](#)
- [Freelancermap](#)

Additional materials can be shared depending on project context.

Contact

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Technical Documentation & Information Structuring for Complex Systems

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