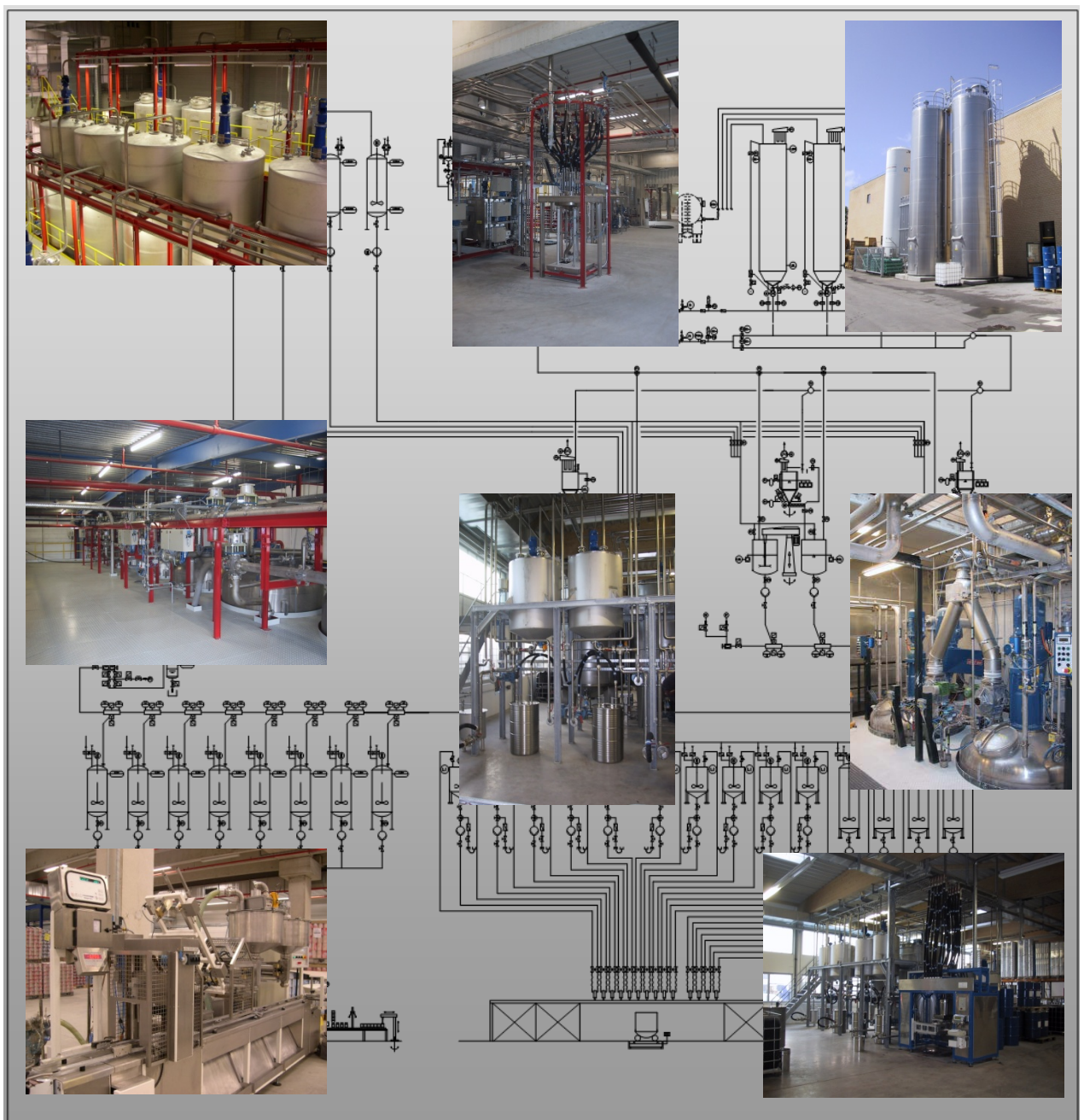




## Engineering and consulting for the paint-, lacquer and building chemical industry

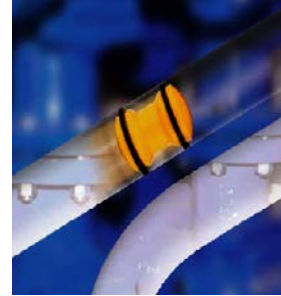
For more than 25 years we have projected and designed machines and plants for the paint-, lacquer and building chemical industry. Use our experience from the first consulting, over the basic- und detail engineering till erection and start up, to find innovative customized solutions for your production.



From the first idea to the realization, in a professional and cooperative way, for modernization, extension and development of machines and plants.

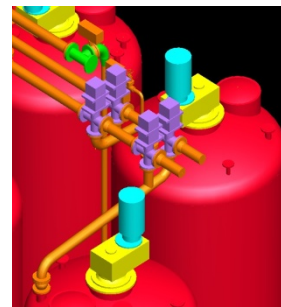
### Consulting

- Project basic rules
- Project and design basics
- Raw material data and basic formulations
- Production concept und batch statistics
- Path-goal Scenario
- Feasibility study - ROI
- Presentation documents



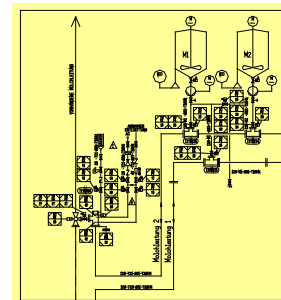
### Basic-Engineering

- Process performance
- Capacity calculations
- Concept for materials storage and dosing
- Contain and list of existing and reused equipment
- Degree of automation
- Steps of investment
- Flowdiagram of the plant (PFD)
- General layout of the plant
- List with basic data to design plant equipment
- Process description
- Emission table
- Control concept
- Tender - project part list
- Calculation operating costs
- Budget of investment



### Detail-Engineering

- Control and continuation of in Basic-Engineering developed documents
- Process und instruments diagram (PID)
- List of electr. consumer, instruments and measuring
- Detail layouts
- Pipe routing drawings
- Foundation drawings
- Coordination with building construction
- Energy consumptions
- Utility diagram for comp. air, water etc. (UID)
- Venting drawings



### Execution – erection – start up

- Coordination of plant erection and building activities
- Inspection of delivery
- Cost- and date control
- Technical supervision and acceptance control



### Documentation

- Checkup und preparation of the „as built“ documentation
- Support and maintenance of existing documentations

