

# **PUR > Planning and Realisation**



We are your reliable partner for plant design and realisation in the chemical industry.

www.puring.de

# ABOUT US **Our company**

We advise companies in the chemical industry and are at your side from basic design through to realisation as a reliable design partner. Due to our integration of plant design and authority engineering, we are able to provide you with the optimum result with regard to technical, economic and legal issues. Our team consists of experts in chemical technology, environmental protection and legal requirements

and can advise you in an interdisciplinary way. In the following pages we will comprehensively present our services in the following areas:

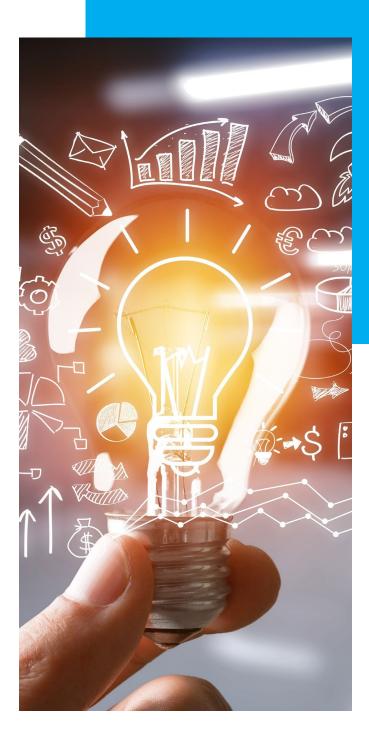
- Plant design and realisation
- Authority engineering and operational responsibilities
- 🥖 Process design



We create the technical, legal and economically best result for your project **with PURe passion!** 







### **CONCEPTUAL DESIGN**

- Basic evaluation and project aims
- Evaluation of safety, technical and economical impacts
- Throughput analysis and capacity calculations
- Graphical presentation of general arrangement, 3D models, process flow and piping and instrumentation diagrams

### **BASIC DESIGN**

- Detailed arrangement of the main components
- ✓ Design and specification of main components, valves and instrumentation
- Preparation of piping and instrumentation diagrams
- Preparation of technical and commercial enquiry specifications for mechanical and electrical contractors





### **3D SCANNING**

- ✓ Visualisation of 3D scanning results in panorama pictures and point clouds
- Unit design of new builds and revamps within the virtual point cloud
- ✓ Preparation of 3D unit design with preliminary piping isometrics and quantities
- ✓ Virtual unit "walk through" using VR-goggles

### **DETAIL DESIGN**

- Mechanical and electrical detail design with drawings and lists
- Tendering and procurement in the client's name
- ⊘ 3D model with installation details
- Control cabinet design with visualisation





### **AUTHORITY ENGINEERING**

- Consideration of legal requirements during design process
- Preparation of approval documentation
- Assistance at and organisation of public participation meetings
- Coordination of all involved parties (authorities, specialist consultants etc)





### **SEVESO III DIRECTIVE**

- Determination of relevance
- Preparation of necessary documentation for all plant areas
- ✓ Performance of risk assessments
- Development of accompanying processes (such as management of change)





### DOCUMENTATION OF LEGAL REQUIREMENTS

- Preparation of documentation and operating procedures according to German regulations (e.g. AwSV)
- ✓ Risk analyses for piping
- Development of storage concepts for hazardous goods
- Preparation of explosion protection concepts and documentation

### REPORTING AND INCIDENT OFFICERS

- External emission control officer
- External incident officer
- External water protection officer
- Understanding of emissions control legal requirements



# SERVICES Process Development

### **TESTING CENTRE**

A testing centre provides an opportunity for process optimisation to obtain better quality or shorter production cycles. This is often combined with considerable costs with regards to equipment purchasing, personnel and testing without any previous experience of the new process steps. Determination of safety issues is complex and testing a new process can lead to considerable disruption of normal production.

### **USING OUR TESTING CENTRE**

We design your pilot plant and determine the relevant process parameters. The material specific quality measurement will be determined together. We have a control system which can be modified to suit the pilot plant as required. Analysis of the test results can be used as a design basis for large scale unit.

### FURTHER SERVICES

As part of our design services, it may be necessary to provide project management and coordinate other suppliers. These supplier can be chosen from existing partnerships or we can provide recommendations in the following areas.

- ⊘ Process unit and component suppliers
- Architects
- ✓ Fire protection consultants
- ✓ Surveyors, structural engineers
- ✓ Notified bodies
- ⊘ Noise, exhaust air and smell consultants
- Designers of hazardous goods storage and ventilation
- ✓ Water protection authorised experts

# **PUR**Ingenieur

## Contact

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