

PES - Added Value

Our measurable targets consist in supporting you to create the following values:

- Revelation of unknown cost reduction potential in equipment investment
- Exposition of unsuspected plant optimization aspects from an energetical and operational point of view
- Enabling cost reduction in logistics
- Converting benchmarking / rating results in competition benefits
- Continuous strengthening of your process knowledge leadership
- Transparent and coherent plant documentation
- Detection of strategical investment option

PES - Customer Advantages

We offer you concrete and profitable values such as:

- Flexible capacity implementation and planning according to your real business needs
- Effective and real minimisation of your personal costs
- Reliable and skilled supports

PES - Application Areas

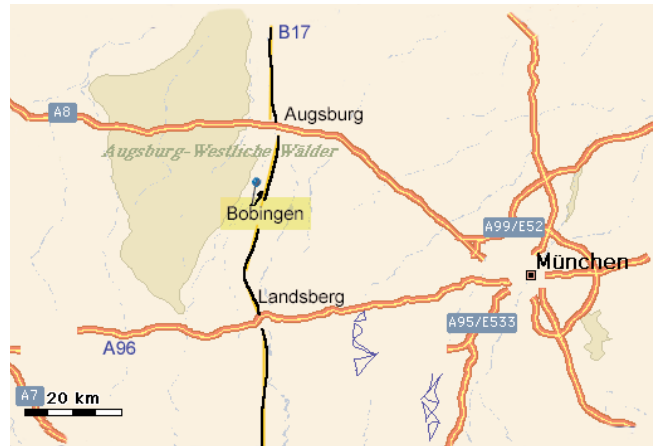
- Chemical Industry
- High pressure technology (up to 3400 bars)
- Chemical plant engineering

PES - Target Group

PES is useful for:

- International engineering contractors
- Licensors of chemical engineering processes
- Local operating engineering contractors
- Operating companies of chemical farms
- Operating companies of chemical plants

MPS in Germany:



MPS contact information and more about PES at MPS:

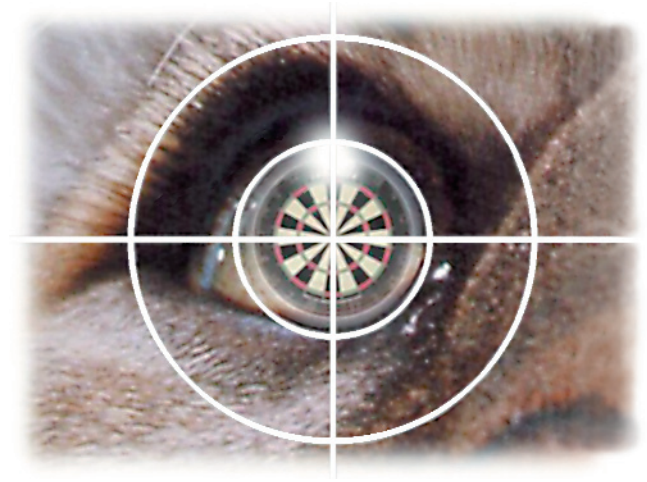
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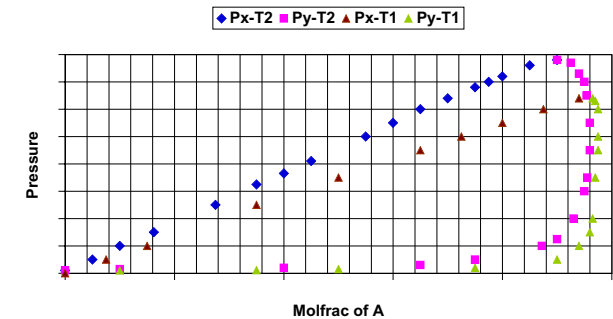
Contact us, if you are interested in further information.
We are eager to serve you.



Mampionona Process Simulation

Process Engineering Simulation – in Plant Engineering

Pxy-Diagram of A & B Mixture



Process Engineering Simulation (PES):

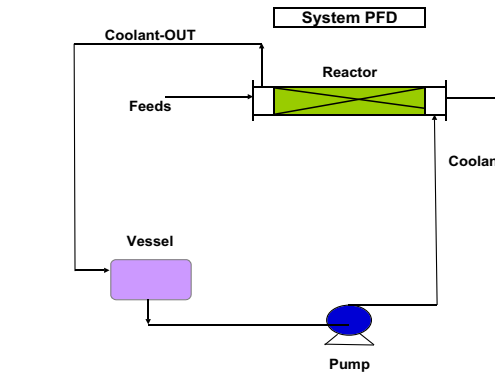
Design and more!

Our Vision:

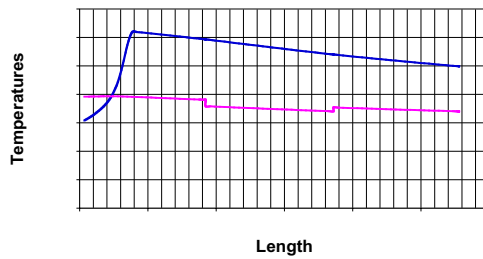
**Continuous increase of added value
for your plant!**

Our Strategy:

**Our knowledge linked with your / our
experiences and tools!**



Temperature Profiles



Mampionona Process Simulation (MPS) is a young service engineering company, which has been active since October 1, 2003 in the world wide plant engineering and construction market.

MPS offers mainly Process Engineering Simulation (PES) services.

PES - Service Offers

We offer simulation services for equipment, units and entire plants in the steady state as well as the dynamic mode, depending on your business requirements. These services can be optionally implemented according to the bottom-up procedure, as desired. Our PES services are as follows:

- Thermodynamical validation
- Plant rating
- Plant design
- Plant optimization
- Spezial development
- Study
- Simulation support

MPS - Additional Services

In addition to PES, we also offer standard services of Basic & Detail Engineering in the field of plant engineering and construction, such as the elaboration of:

- Process flow diagrams
- Process and instrumentation diagrams
- Process data sheets
- Process descriptions
- Operating manuals for your plants

PES - Tools

We use modern and dynamic software, selected according to the state of the art of simulation technology in the chemical process engineering field. Your own tools could also be used, if desired.

Our main tools consist of:

- Aspen Plus ¹⁾ (steady state applications; physical properties)
- Aspen Dynamics ¹⁾ (dynamic applications)
- Aspen Custom Modeller ¹⁾ (dynamic applications; model development and customisation)
- Fortran (model development and customisation)
- Turbo-Pascal ¹⁾ (model development and customisation)
- Visual-Basic ¹⁾ (model development and customisation)
- MS-Office ¹⁾ (Documentation)

¹⁾ not proprietary of MPS

PES - Experience and Qualification

Mr. Mampionona has extensive personal experience in the international plant engineering business and references in the field of process simulation, plant practices and project works.

PES - Simulation Experience / Simulation Reference

- Rating and optimization of cyclone separators
- Thermodynamical study of EVA phase behavior
- Thermodynamical Handling of LDPE media

- Dynamical study of the behavior of a LDPE reactor
- Dynamical simulation of batch reactors
- Mass and heat balance of a LDPE plant
- Mass and heat balance of an EPS plant
- Mass and heat balance of a PVC plant
- Design and optimization of a phosgene stripper
- Thermodynamical validation of a PC plant
- Co-Coaching of a diploma on a simulation of a thin film evaporator
- Coaching of the thermodynamical validation of an acetic acid plant
- Sizing of a LDPE reactor cooling system
- Study of the sizing and optimization of a LDPE reactor cooling system
- Handling of a pipe crack / pipe rupture in the high pressure side of the LDPE process
- Dispersion calculation of gas and noise emission
- Quantification and dispersion of pressure wave in case of ethylene explosion over the LDPE reactor chamber
- Contribution of numerical and software engineering techniques to the implementation of a simulation program of a LDPE plant blowdown
- Development of a robust dynamical model and application of numerical techniques for the study of pressure, temperature and mass flow behavior in a pipe

PES - Plant Experience

- LDPE-Plant in Germany
- LDPE-Plant in Beaumont / Texas -USA
- LDPE-Plant in Daesan / South-Korea

PES - Project Experience

- LDPE Hungary
- LDPE South-Korea
- LDPE UK
- LDPE Russia
- LDPE France
- LDPE Iran
- LDPE China (1)
- LDPE China (2)
- BEP Iran
- PVC Germany
- EPS Germany