

Simulation of Twin Screw Extruder in 3D

Features 3D efficient functionalities for twin-screw extruders LOCAL analysis. XimeX-TSE simulates your own TSE equipment for optimizing its efficiency. User's mesh-free SCC specific technology : no numerical skills required !

Modeling the mixing processes for
- getting in deep details on the mixing details
- optimizing the processes

With fully parallelized computation, XimeX-TSE provides **fast and reliable results** for spreading the simulation benefits at a glance

Local analysis
focused

Quantifying the
mixing efficiency

Spreading the
simulation
benefits

Process
optimization at
the finger tips

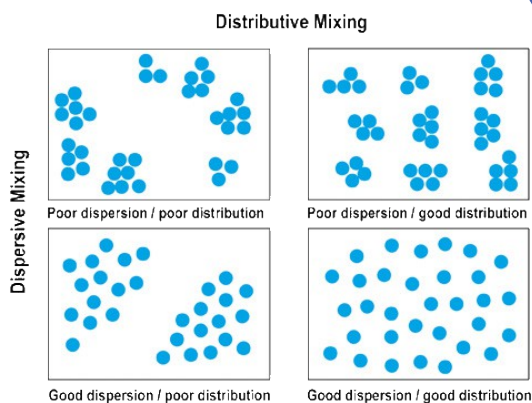
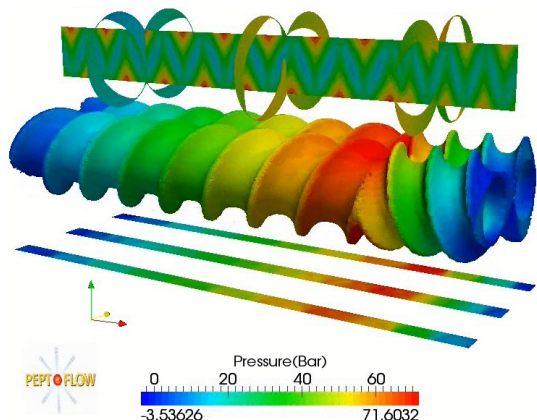
With a **particles analysis**, XimeX-TSE quantifies the mixing efficiency on given zones by identifying dispersive/distributive mixing criteria

XimeX-TSE simulations scan the optimization potentiality of a couple process/products

Replace **trial & error** with numerical simulation to save **time & money**



XimeX-TSE is designed on the basis of XimeX strategic Initiative: A research project dedicated to mixing processes simulation platform, led with a pool of industrial companies and supported by SCC and CEMEF lab from MinesParisTech.



Numerical technology

The XimeX development platform introduces a single mesh multi domains approach developed by the Cemef (Cimlib®). This allows to easily address complex geometries and kinematics. No more troubles to generate meshes !

Material Rheology

When addressing mixing objectives, rheology of material is the key point. XimeX uses a Cemef designed algorithm to solve FEM problems even with extremely complex rheologies (threshold , non newtonian ...)

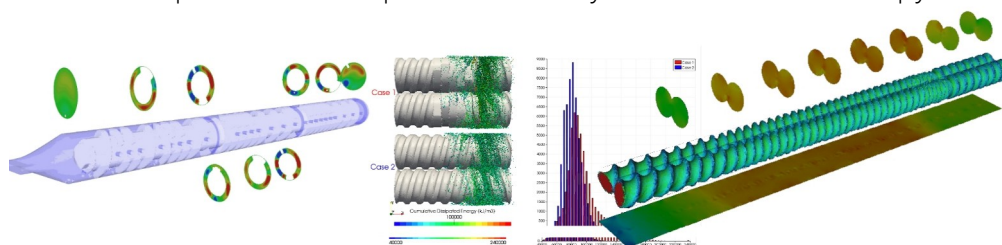


Process Optimization

Computation accuracy is used for testing many configurations of a given equipment. This makes easier the process optimization in a few results analysis.

The particles statistical analysis allows to track particles on the material flow to identify the physical phenomena and quantify the mixing of a given equipment.

Particles can be analysed from different point of views : position, velocity, stretch, erosion, entropy ...



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