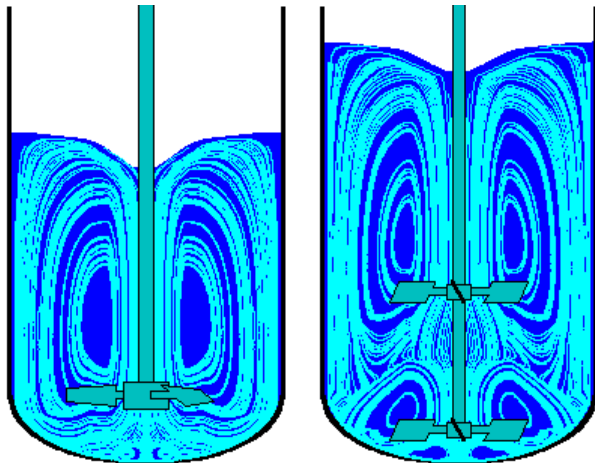


Agitation

Let DDPS customize your agitation system to optimize your reaction process. Our exclusive software allows for a complete simulation of an existing agitation system and a thorough comparison with several alternate systems, which will; improve yield, increase heat transfer, maximize product quality, reduce batch time, control crystal growth, re-fine process flexibility, and any other agitation improvements required.



Output

DDPS can provide you with full color, time-based, axial flow diagrams; horsepower draw; overall and circulation flow rates; blend or turnover times; average axial velocities; average, maximum and wall tangential velocities; shear rates for the agitator and baffle; vortex depths; and more. But most importantly, De Dietrich will come to you, with the software in hand, allowing you to change and modify the simulated agitation system to meet your exact needs. See how changing the following parameters will effect your process:

- | | |
|-----------------|---|
| <u>Agitator</u> | RPM |
| • Blade | Span, Angle |
| • Blade Design | Flat turbine, Hydrofoil, Breaker Bar (for high viscosities), Retreat Curve Impeller |
| • Tiers | Number, Location |
| <u>Baffle</u> | Size (length and width), Number, Location |
| • Baffle Design | BeaverTail™, finger, H or D, or without baffles |

Optimization

DDPS can optimize your agitation system for the following processes: suspension, dissolution, and/or extraction.

Blending

DDPS can show you the latest in agitation and simulate “Up Pumping” for your process. Get superior liquid-liquid blending from a new or existing GlasLock® agitator.



Customer Information

Company: _____ Contact: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone: _____ Fax: _____ Email: _____

(Please include units of measurement for data provided)

Your Existing Reactor

Reactor Type: _____
 Vessel Diameter: _____
 Total Volume / Mixing Volume: _____ / _____
 Tangent to Tangent Dimension: _____

Your Existing Mixing System

Existing Gear Box: _____
 Quantity and Type of Baffle(s): _____
 Existing HP: _____
 Type/Size of Mechanical Seal: _____
 Type of Agitator: _____
 Agitator Material: Glass-Lined Steel Alloy
 Agitator Speed [rpm]: Fixed Variable

Your Existing Process

Suspension	Dilution	Neutralization
Dissolution, Crystallization		Chemical Reaction
Dispersion	Heat Transfer	Fermentation
Extraction, Liquid-Solid		Extraction, Liquid-Liquid
Emulsion	Absorption	Gas Sparging
Blending	Circulation	Coagulation
Other: _____		

Process Definition (important)

Special requirements (product concentration, start-up from settled solids, required blending time, etc.):

Vessel Contents

LIQUID Type: _____
 Specific Gravity: _____
 Viscosity: _____
 Capacity: _____
 Temperature: _____

SOLID Type: _____
 Bulk Density: _____
 Granulation: _____
 Decantation Time: _____
 Concentration: _____

GAS Type: _____
 Flow: _____
 Pressure: _____

BLEND Specific Gravity: _____
 Viscosity: _____
 Temperature: _____

Performance Data

Shear:	High	Gentle	Low
Turbulence:	High	Gentle	Low
Pumping Effect:	High	Gentle	Low

What Would You Like to Improve?

Increase Yield Shear Suspension

Reduce Batch Time Dissolution, Crystallization

Dilution Neutralization Dispersion

Extraction, Liquid-Solid Extraction, Liquid-Liquid

Emulsion Heat Transfer Blending

Absorption Fermentation Gas Sparging

Coagulation Circulation

Other: _____