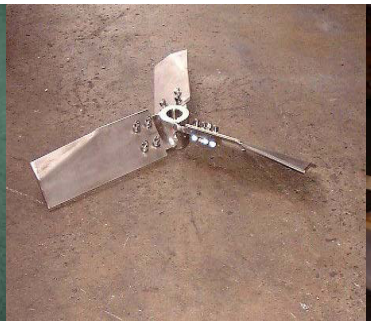
MIXERS NEUTRONE

Worldwide Leader In Mixing Fluids Technology

NEUTRONE® IMPELLER TECHNOLOGY

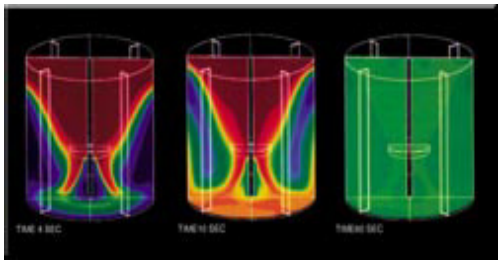




THE KEY OF SUCCESFUL IMPELLER RESEARCH/DESIGN

Neutrone® impeller designs are the result of over year & year of research and applied application experience, resulting in range of durable and efficient impeller. Proprietary technologies are applied to thoroughly analyze all process parameters, ensuring proper impeller selection for optimal performance in every application.

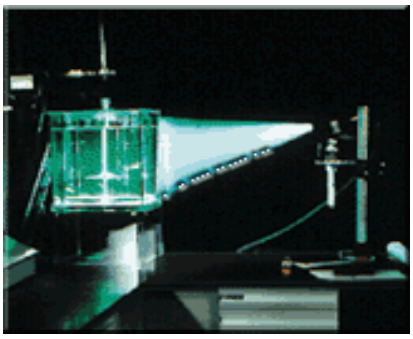
Computational Fluid Mixing (CFM)

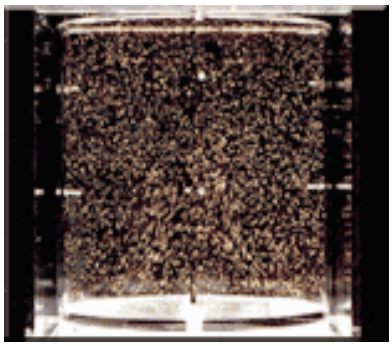
CFM is a powerful tool that is used to mathematically model fluid flows of different agitator/impeller designs in mixing tanks. Mixing of single and multi-phase fluids in stirred tank reactors is a common operation in many industries. Understanding the fluid flow in these tanks is critical for equipment design, scale-up, process control and economic factors. CFM models allow you to see what is taking place in the mixing vessel. The results enable an engineer to select the best agitator design to obtain the desired process performance.



Digital Particle Image Velocimetry (DPIV)

DPIV helps our engineers to better understand the flow phenomena occurring in mixing tanks. An Argon-Ion laser light sheet illuminates fluorescent, neutrally buoyant particles. A CCD camera captures the images, then an advanced timing system and a computer with image board freezes and digitizes the images. The picture below shows the motion of fluorescent particles illuminated by a sheet of Argon-Ion laser light. The particles (60 micrometers) are small and neutrally buoyant, so they follow the liquid flow. The tank is equipped with a pitched-blade turbine. The particle motion is filmed with a CCD camera. The velocity field is then extracted from the digitized images using cross-correlation software. Armed with this information, our engineers can better design agitation equipment for your specific application.





UNIQUE NEUTRONE® IMPELLER RANGE

The key to an efficient mixing system is the impeller. For each application there is an ideal impeller where available in 316/316L stainless, mild steel, carbon steel and coatings are available.

NE-3

AXIAL FLOW IMPELLER

NE-3
High Efficiency Impeller, which generates high flow with lower power consumption compared to others

NB-4

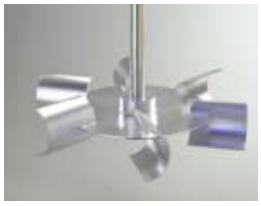
NB-3

NB-4/NB-3
Traditional impeller for larger volume applications, ex: for solid/liquid drawing process applications

NM-3
Advanced Marine propeller for liquid-liquid mixing process application

NR-6C

NM-3

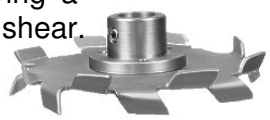


RADIAL FLOW IMPELLER

NR-6C
Rushton turbine is the traditional impeller for liquid-gas dispersion process application

NSX
Generates high flow for high shear process applications which involving a combination of blending and a need for physical change created by fluid shear.

NSX



NU-2
The anchor impeller is the most economical laminar flow impeller. It is most effective in squatty batches where vertical pumping is not as important as in tall batches. It has applications in blending and particularly, heat transfer, where the viscosity as high as, 100,000cPs

NU-2

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