

New **LIGHTNIN** Impeller For Better Mixing And Gas Dispersion In Fermentation

The new LIGHTNIN A315 axial flow impeller increases mass transfer coefficients, lowers shear rates, improves blending, and reduces power consumption.

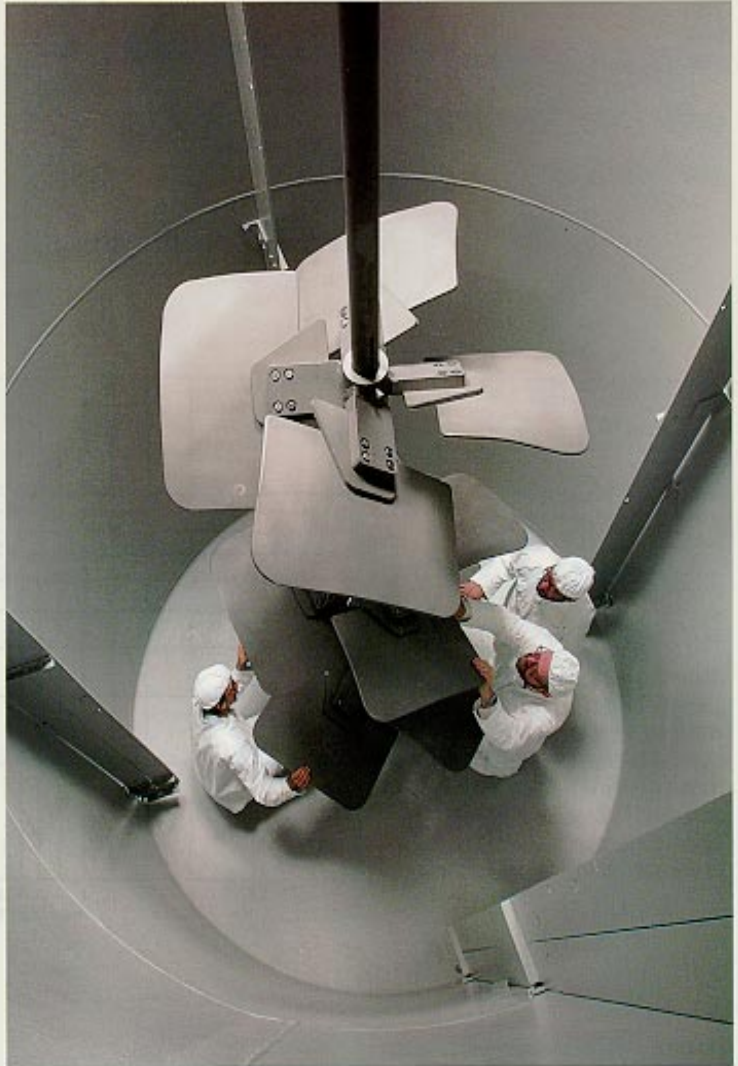
Compared to Rushton turbines, the A315 provides 30% greater mass transfer coefficient at equal torque and power consumption while extending the range of gas rates for axial flow impellers.

You can reduce power consumption for energy savings of up to 45% compared to traditional approaches. And, at the same time, you can improve process yields 10 to 50% for a giant gain in productivity.

Compared to the Rushton turbine, the A315 generates $\frac{1}{4}$ the shear rates for minimum turbulence and maximum fluid flow. That makes it ideal for applications where lower maximum macroscale fluid shear levels are beneficial-for example, shear sensitive fermentations.

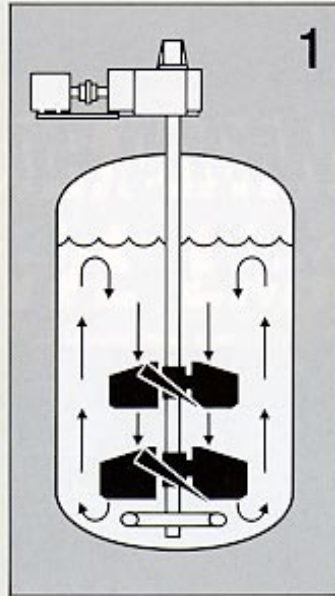
Diameters range from 16 to 110 inches, for applications requiring 20 to 1000 horsepower.

Talk to us about the impeller size, horsepower and configuration that's right for your process. Call your nearest LIGHTNIN sales engineer. Or write Lightnin, 135 Mt. Read Blvd., P.O. Box 1370, Rochester, New York 14603.

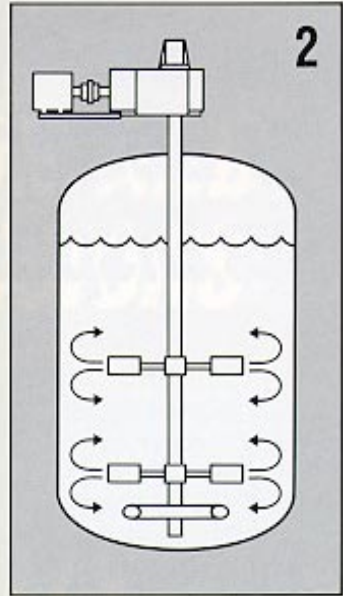


LIGHTNIN

(1)
Fermenter Mixer
with Dual A315
Axial Flow
Impellers

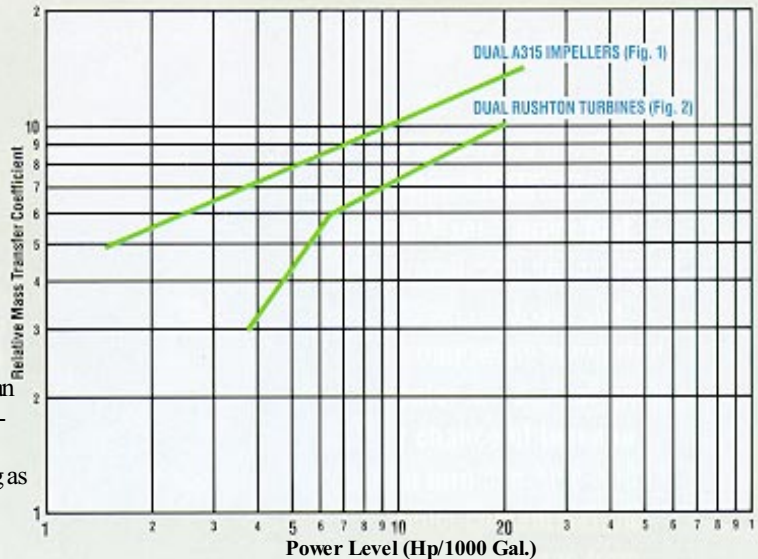


(2)
Fermenter Mixer
with Dual Rushton
Turbines



Comparison of
Mass Transfer
Capability of
LIGHTNIN[®] A315
and Rushton
Turbine

Above 6.5 horsepower per 1000 gallons, the dual A315 axial flow impellers provide an average 30% higher mass transfer coefficient than Rushton turbines. Below 6.5 horsepower per 1000 gallons, Rushton turbines experience severe flooding as the gas disturbs the flow pattern.



LIGHTNIN is a registered trademark of Lightnin.



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 Members of the **LIGHTNIN** group are located in Rochester, N.Y., U.S.A.; Toronto, Canada; Mexico, D.F.; Poynton, England; Jurong, Singapore; Sydney, Australia; Nierhagen, Germany; Milan Italy; Rio de Janeiro, Brazil; Shanghai, China.