



*Mixing Solutions
As Unique As Your Needs*

HIFLOW™ IMPELLER

Applications:

- Liquid blending
- Solids suspension
- Heat transfer

ProQuip HiFlow™ impellers produce a very high flow/shear ratio for maximum pumping action and efficiency in low viscosity, flow controlled mixing processes.



We put technology to work delivering high pumping action

ProQuip HiFlow™ is a patented three-bladed mixing impeller designed using the technology of fluid mechanics originally developed for the aerospace industry. HiFlow impellers produce a very high flow/shear ratio for maximum pumping action and efficiency in low viscosity, flow-controlled mixing processes. Examples include blending miscible liquids, solids suspension, heat transfer, dissolving and crystallization, and many extraction and chemical reaction processes.

More efficient design means lower power consumption

Power and torque requirements for HiFlow impellers are usually 30% to 50% lower than for comparable axial flow turbines. Significant savings can be obtained when the HiFlow impeller is appropriately applied. Not only are smaller drive sizes required, reducing capital cost, but also the 50% average power cost savings resulting from use of HiFlow impellers will significantly reduce operating costs.

GUARANTEE

ProQuip, Inc. accepts full responsibility for furnishing suitable equipment which shall be fit for the purpose which it is required, and for its successful operation under the conditions for which it was specified

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The best choice for solids suspension and dissolving

The HiFlow impeller was designed with solids suspension in mind. The key to solids suspension is lifting particles off the bottom of the vessel. It requires more velocity to pick up particles than it does to maintain them in suspension. The HiFlow directs a concentrated jet of high velocity fluid directly onto the floor of the vessel. This high velocity, directed where it counts, sweeps up solid particles and entrains them into a slurry more efficiently than other comparable designs.

HiFlow impeller delivers maximum efficiency - lower costs

The HiFlow impeller may be placed farther from the tank bottom with little or no loss in mixing efficiency. This may eliminate the need for additional impellers saving both impeller and shaft costs. In solids suspension operations, placing the impeller above the settled bed avoids start up problems associated with an impeller buried in the solids.

Low shear and uniform axial discharge velocity of HiFlow impellers reduces velocity and shear stress variations improving product quality in processes involving fragile solids, crystallization, emulsions and suspension polymerization. The relatively high mechanical strength of the tapered blade allows use of thinner blade materials, reducing weight and cost. Low turbulence on the blade edges and surfaces reduces wear in abrasive slurries.

HiFlow is the right way to upgrade your existing process

In many cases, existing mixers can be upgraded to HiFlow impellers. Operating at the same speed and power draw, pumping rate can be increased as much as 73%. Mixing times may be reduced to as little as 30% to 50% of those previously experienced. When combined with the highest available flow efficiency - pumping rate/horsepower - these features make the ProQuip HiFlow the finest impeller available for most mixing processes.

