

Revolmix Processing Ltd



The Next Generation of Mixers

High Performance Centrifugal Dispersing Impeller (HPCDI[™])

We Take Care of Environment

Provide More Value

Revolmix changed the concept of industrial mixing by inventing the HPCDI.

Mixing is no longer an energy intensive operation unit. HPCDI is the solution to costly mixing problems including sludge/solids buildup, impeller ragging, floating material (polymer/foam/scum) stayed at water surface, inefficient mixing, dead zones, etc.

New Concept, Innovative Mixing Mechanism

Traditional mixers pushing water forward. Pushing wastes energy. Pushing is not mixing.

Fireworks Like Dispersion

As shown in the pictures, HPCDI creates uniques flow patterns for the most effective mixing. Solids are dispersed outwards like fireworks. Homogenueity is achieved at controllable speed, which is critical to many applications.

Tornado Like Solids Suspension

The mixing effectiveness is multiplied by the Tornado like solids suspension. Tornado is one of the most powerful natural forces for lifting. The solids at tank bottom are sweept to the center and lifted by the tornado like swirling, leaving completely clean bottom. HPCDI has unparalled solids suspension capacity. It is your solution to solids settlement and costly cleanup.



✓ High Energy Efficiency

The uniquely designed impeller apply energy directly to the whole tank volume instead of small portion of the water. Significant lower energy consumption (Installations evidenced 43~90% energy saving comparing to traditional products). Low carbon foot print.

High Production and Product Value

Effective mixing means high production, smaller tank/rector volume (15~35% less), high grade/value products, and less material/chemical wasted and discharge to the environment.

Low Labor and Cost on Maintenance

The products were developed to reduce labour and cost on maintenance. The superior solids suspension capacity prevent heavy solids settlement. No sludge build up. No costly facility shutdown and clean up.

The impellers are ragging-free. No need to pull equipment out to clean the fibrous debris.

Safe Operation

Our products are dry installed. No wetwell (confined space) entry required. They need the least maintenance (Oil change per 1~4 years).

Flash Mixing

Coagulation

pH Control/Chemical addition

Polymer makeup

Lime slurry

Carbon storage

Equalization

Fermenter

Digestion

Anoxic tank

Sludge blending

Agriculture

Biochemical

Chemical

Food Processing

Mining

Oil & Gas

Refinery

Pharmaceutical

Pulp & Paper

Water Treatment

Wastewater Treatment

MIXER DRIVES

We use mixer drives engineered and built specifically to handle the unique and demanding requirements of mixing applications.

Key features to provide robust service to minimize your maintenance and longer life:

- Large diameter, high capacity output shafts to accommodate the highbending moment loads.
- Larger, long-life bearing with a minimum L-10 life.
- No-leak drywell design physically separate the oil sump from the output shaft to eliminate gear oil contaminations of your products.
- High Strength helical gearing.
- Comprehensive leak protection.









High Performance Centrifugal Dispersing Impeller (HPCDI)



HPCDI -T



HPCDI-G



HPCDI - X

IMPELLERS

Impeller is the heart of a mixing system.

Performance of a mixing system is largely determined by the impeller. This is why we invest in the impeller study and research. From hundreds of options, we finalized these three impeller configurations to best satisfy your mixing challenges.

Traditional mixers "pushing" water at one direction. Pushing is too far away from mixing – what the industrial processing really needed. This results in inefficient mixing and energy wasting.

Our products "**dispersing**" – spread particles at various directions. Therefore, complete mixing is achieved by a fractional power that of traditional products. The energy saving is significant.

The super-efficient mixing is achieved by the *FireWorks* like dispersing effect and the *Tornado* like solids suspension capacity.

HPCDI – **T** is designed for tall and slim tank mixing. The impeller will disperse to the particles directly to the top and bottom for efficiency mixing.

HPCDI – **G** is designed for general mixing. It create the Tornado force above and under the impeller. The upper tornado drawdown the floating material to the impeller and dispersed. Polymer dilution, as an example, the dry polymer needs be drawdown to the impeller for effectively diluted. The bottom Tornado will suspend and mix heavy solids, such as lime.

HPCDI – **X** is designed for anoxic/anaerobic mixing, or other oxygen sensitive mixing, where the least surface disturbance is desired.

Canadian Manufacturing Technology and Quality







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