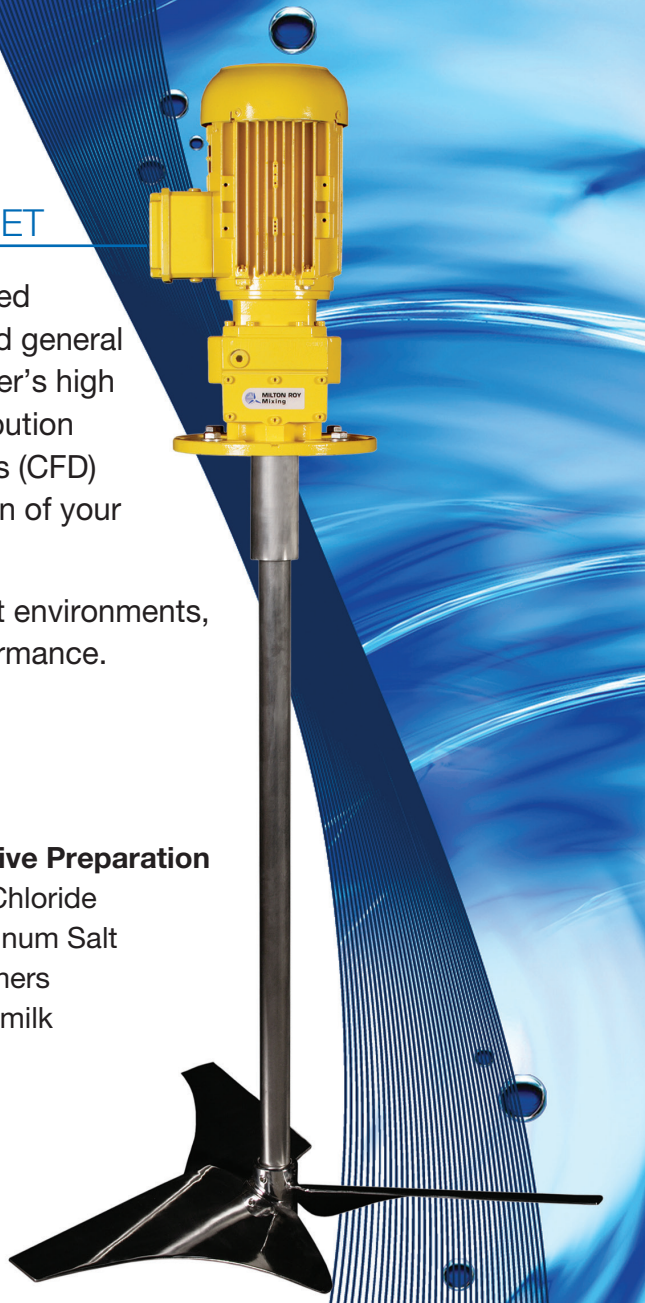
HM

TOP ENTRY MIXERS

DATA SHEET



The Milton Roy **HM** top-entry mixer is a configured unit engineered specifically for water treatment, chemical processing, mining, and general industry. Ideal for open tank applications in any volume, the mixer's high powered impeller provides greater flow and better velocity distribution throughout the tank. Milton Roy's Computational Fluid Dynamics (CFD) analysis ensures the ideal mixing results with scientific verification of your process.

The HM mixer is a compact yet powerful unit designed for robust environments, energy savings, and a long product life for years of reliable performance.

Applications:

- **Water Treatment**
  - Coagulation
  - Flocculation
  - Flash-mixing
  - Sludge Conditioning
  - Homogenization
  - Dilution
  - Dissolution
  - Neutralization
  - Storage
  - pH Adjustments
- **General Blending**
  - Paints
  - Inks
  - Additives
  - Adhesives
  - Lubricants
  - Coatings
  - Sump Mixing
- **Reactive Preparation**
  - Iron Chloride
  - Aluminum Salt
  - Polymers
  - Lime milk

Features & Benefits:

- Modular configuration to meet specific application needs
- Configured components in stock for fast build and ship, short lead-times
- Easy mounting via adapter plate or standard ANSI mounting flanges to a square support on open tank applications
- Multiple mixers can be installed on a single tank
- 100+ year history for added product confidence
- Energy efficient for added savings
- Reliable operation with consistent results
- Easy to maintain, saving valuable time and resources
- Designed for rotation during filling and emptying of tank for optimum performance

MILTON ROY Mixing

At the heart of mixing

MILTON ROY Mixing

HM

TOP ENTRY MIXERS

Specifications:

Operation

- Atmospheric pressure, outside location
- Temperature range <176°F (<80°C)

Mixer data

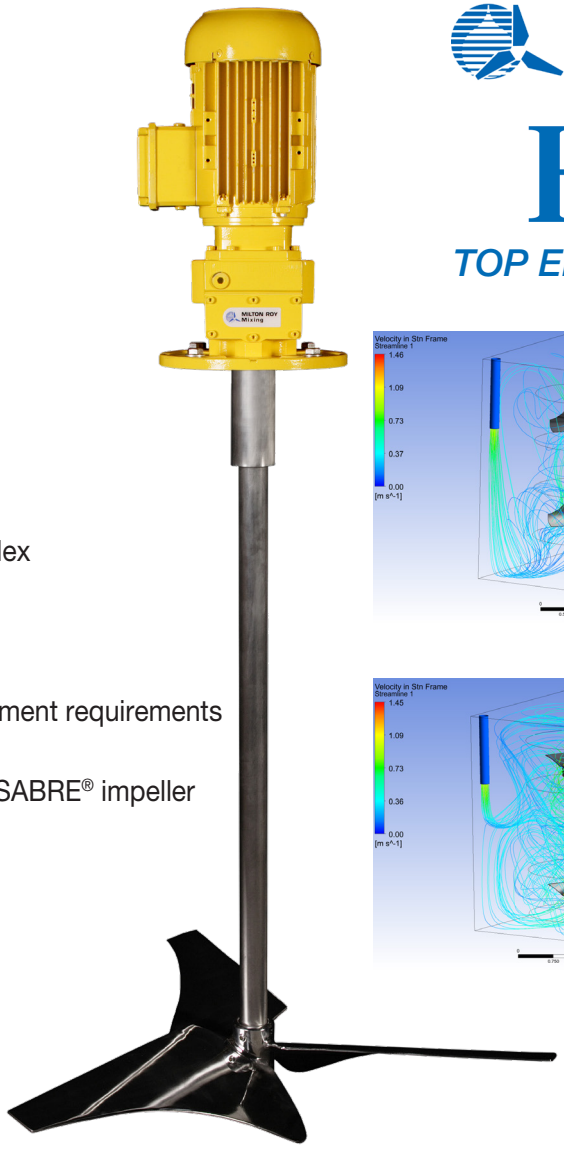
- Rated power: 0.37 to 37kW
- Rotation speed 5 to 300 rpm
- Shaft length up to 12m

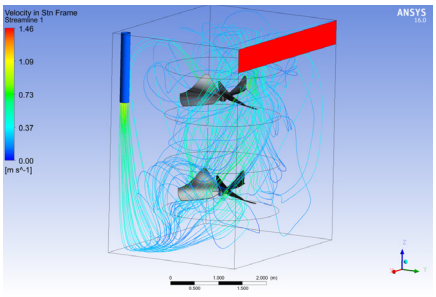
Electrical data

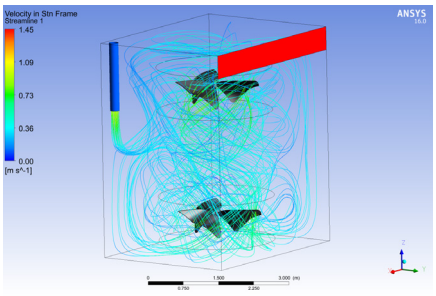
- 230 to 690 Volts
- 50 Hz, 60Hz, low voltage, energy efficient
- IP 55, 65, 66, . . .

Materials

- Stainless steel 316L or 304, duplex, super-duplex
- Painting: According to C2-C3-C4-C5







Options:

- Motors based on country regulations and environment requirements
- Upgraded materials for aggressive environments
- Variety of impellers to choose from including the SABRE® impeller
- ATEX option
- Variable speed

Standards of Excellence:

ISO 9001
ISO 14001
OHSAS
GOST_R
ATEX / UL Compliance (optional)

Impellers:

PBT - Axial or Radial Flow
HPM 20 - Axial Flow
HPM 10 - Axial Flow
10 SG - Axial Flow
R - Axial Flow
Rushton Turbine - Radial Flow
Curved Blade Turbine - Radial Flow
Flat Blade Turbine - Radial Flow
Counter Flow Impeller - Axial Flow

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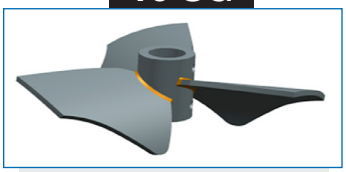
6/2018

MILTON ROY® Mixing

AXIAL IMPELLERS

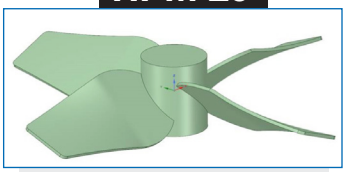
10 SG



Axial Flow
Excellent pumping rates
Low shear mixing
Medium to high viscosity
1, 3 or 4 blades

Applications:
Homogenization
Solid suspension
Heat Transfer
Draft Tube (Impeller C)
Side entry (4 blades)
WWT

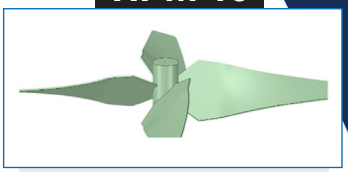
HPM 20



Axial Flow
Hight pumping rates
Hight mixing efficency
Low and medium viscosity
1, 3 or 4 blades

Applications:
Homogenization
Solid suspension
Heat Transfer
WWT

HPM 10



Axial Flow
Good pumping rates
Low and medium viscosity
2, 3 or 4 blades

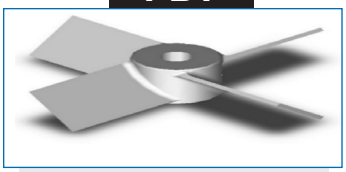
Applications:
Homogenization
Solid suspension
Heat Transfer

HPM 5

Axial Flow
Very low shear mixing
2 blades
Low viscosity

Applications:
Solid suspension
Crystallization
Used principally for cristalization of alumina
Multistage agitator

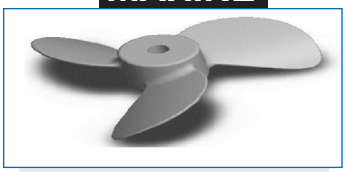
PBT



Axial and Radial Flow
Shear mixing
Blades are mounted at an angle of 10° to 90°
Low viscosity
2, 4 or 6 blades

Applications:
Homogenization
Heat Transfer
Reactive dispersion & incorporation

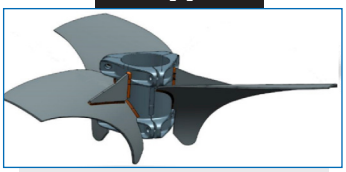
MARINE



Axial Flow
Good pumping rates
Low viscosity
Hight mixing efficency

Applications:
Homogenization
Solid suspension
Heat Transfer

R



Axial Flow
High pumping rates
Low and medium viscosity
Low shear mixing

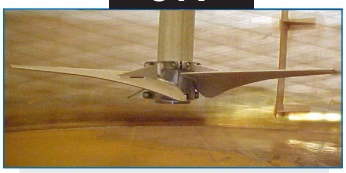
Applications:
Homogenization
Solid suspension
Heat Transfer
WWT

S

Axial Flow
High shear mixing
Low viscosity
Fast agitation (High speed)

Applications:
Homogenization
Flash-mixing
Treatment of sewage sludge (presence of yarns and fibers)
WWT

31T



Axial Flow
Fast agitation (High speed)
Low viscosity
Low volume

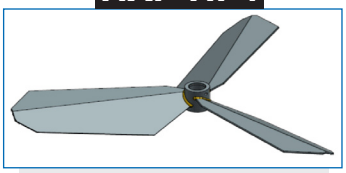
Applications:
Flash-mixing
Homogeneization
WWT

2R

Axial Flow
High pumping rates
Low viscosity
Low Shear mixing
2 blades

Applications:
Homogenization
Simple Floculation
WWT

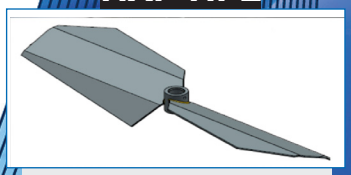
HXP HP1



Axial Flow
3 blades
Low viscosity
For fluid product (without solid load)

Applications:
Homogenization
WWT

HXP HP2



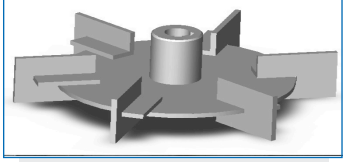
Axial Flow
Low Shear mixing
Low viscosity
For fluid product (without solid load)

Applications:
Homogenization
Simple Flocculation
WWT

MILTON ROY® Mixing

RADIAL IMPELLERS

RUSHTON TURBINE



Radial Flow
Gaz-Liquid/
Liquid-Liquid Transfer
For low to medium viscosities
Low viscosity
High shear

Applications:
- Hydrometallurgy
- Heat Transfer
- Coupled with axial flow impeller
- Low off-bottom placement for assisting solid suspension

FLAT BLADE TURBINE

Radial Flow
Gas-Liquid
Liquid-Liquid Transfer
For low to medium viscosities
Low viscosity
High shear. 2, 4 or 6 blades

Applications:
- Hydrometallurgy
- Heat Transfer
- Coupled with axial flow impeller
- Low off-bottom placement for assisting solid suspension

CURVED BLADES TURBINE

Radial Flow
Low level agitation
Low Shear
Low viscosity

Applications:
- Prevents solid settling
- Solid suspension
- Heat Transfer
- Low off-bottom placement for assisting solid suspension

BROGIM

Radial Flow
High Gas-Liquid Transfer
High pressure reaction
Low viscosity

Applications:
- Bio-Hydrometallurgy

SELF SECTION TURBINE

Radial Flow/Self aspiration
Gas-Liquid Transfer
Low viscosity

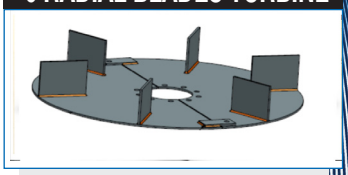
Applications:
- Hydrogenation
- White liquor
- WWT (O^2 injection T2)

HIGH SHEAR IMPELLER

For High shear applications
High speed dispersion
High viscosity
Used to break down solids

Applications:
- Deagglomeration
- Emulsification

6 RADIAL BLADES TURBINE



Two removable parts
Low viscosity
Used to break down solids

Applications:
- Sulfur Melter
- Heat transfer
- Coupled with axial flow impeller
- Low off-bottom placement for assisting solid suspension

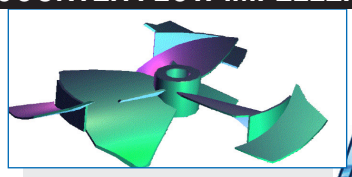
SPECIAL IMPELLERS

HPM/TPM

Special Bottom impeller
Low and medium viscosity

Applications:
- Hydrometallurgy
- Prevents solid settling
- Used principally for Alumina precipitation & coupled with HPM 5

COUNTER FLOW IMPELLER



Axial Flow
Mixing viscous fluids (High viscosity)
Low Re number (laminar or transitional)

Applications:
- Polymerization
- Food process
- Dispersion of non-Newtonian fluids

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