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Mixion, a division of GMM Pfaudler, focuses on superior mixing technologies, engineering solutions, sustained innovations and growth. Mixion is derived from the words mix and ion, indicating our competency in the core process of mixing and the ability to demonstrate mixing simulations at a particle level.

At Mixion, we offer our customers novel technologies which will help them improve efficiencies, yields and reduce costs. We offer full-line expertise in mixing including designing, simulating, engineering and manufacturing agitators, mixers, reactors and other allied mixing equipment.

Our competence in mixing solutions comes from our industrial experience of over 35 years. Our continued collaboration with the BHR Group, U.K. and our close cooperation with renowned academia at the Institute of Chemical Technology, Mumbai University, has helped us innovate and improve the mixing performance of our designs.

Mixion is headquarterd at Pune and will be GMM Pfaudler’s Center of Excellence for Mixing Solutions. The facility will have, in addition to the engineering and manufacturing of agitators, Research & Development for new designs and applications, Test Labs, Mixing Tanks and CFD simulation expertise.
Stirring across Industries
The Perfect Blend of Products
TOP ENTRY AGITATORS

MIXION - TEMI

→ Mixion’s TEMI can be used for various applications such as blending, coagulation, crystallization, dissolution, extraction, fermentation, gas dispersions, heat transfer, holding, leaching, polymerization, slurry suspensions, high viscosity blending and more.

→ For Batch and Continuous Stirred Reactors for liquid-liquid, solid-liquid, solid-liquid-gas mixing

→ Custom designs to best-fit mixing needs across all major process industry

→ Maintenance friendly features to reduce downtime with various sealing & drive design options

SUPPLY RANGE

MOTOR RATING (KW): 0.25 - 315
SHAFT DIAMETER (MM): 20 - 350
OPERATING PRESSURE: Designed upto 100 bar

MATERIAL OF CONSTRUCTION:
SS 316/316L, Duplex & Special Alloy Steel

SEALING OPTIONS
Open Tank, Gland Packings, Mechanical seals with varied API seal plan
CO-AXIAL & MULTI-SHAFT AGITATORS

MIXION - COAX

→ Multi-Shaft and Coaxial shaft, widely used in paints and inks industry, combines the challenging mixing duties of solid dispersion into high viscous fluids

→ Rigid or flexible scraper and viscflow® arm impeller for improved mixing performance

→ Supplied with mixing vessel

HIGH-SPEED DISPERSERS

MIXION - HISD

→ High shear applications for solids dispersion

→ Pneumatic/hydraulic lifting arrangement with designs options on fixed or variable speed drive arrangement offered

→ Offered with trolley mounted tanks
Mechanical Pan Circulators used in Sugar industry are top entry agitators with high-efficiency wide blade hydrofoil impellers. It is used for A, B, & C massecuites pans with syrup or molasses.

It enhances the crystallization process, thereby increasing the number of strikes or reduction in batch time by increasing heat transfer efficiency and evaporation. It helps in uniform & consistent crystal formation and reducing sugar loss due to local overheating. The steam consumption is also lower in the pan.

Can be offered with planetary or bevel helical gearbox options to suit the site installation requirements.
STATIC MIXERS

MIXION - SMIX

→ Static mixers / inline mixers are installed in the piping sections in applications wherein continuous mixing is desired. Applications are mixing variety of fluids with lower viscosity. Our static mixers have an efficiency helical mixing element which is removable type, enveloped in a pipe casing. The material of construction (MOC) can be any to suit the application like MS, SS304, SS316, 904L, Special Alloys etc.

→ Accurately configured, high-efficiency helical elements provide a distinct flow pattern with low-pressure drop to achieve the desired process results.

SIDE ENTRY AGITATORS

MIXION - SDMI

→ The preferred option for large tank sizes.

→ Available in both design options fixed & swivel angle with shut off device for maintenance of mechanical seal, without tank draining.

→ Applications include Blending, Maintaining Homogeneity, Heat Transfer including tanks for crude oil, bottom sludge and water (BS&W)
GAS INDUCTION AGITATORS

MIXION - HEGI

→ High-Efficiency Gas Induction Impeller (HEGI), is the result of exhaustive research and development. By virtue of its unique geometry (under patent) HEGI can create almost 3 times higher gas hold-up than conventional gas induction impellers

→ Proprietary magnetic coupling, pressure vessel and automation completes the solution

→ HEGI along with multiple impellers can be designed for hydrogenation, chlorination, alkylation, ammonolysis, ethoxylation, oxidation reactions
SLURRY AGITATORS

MIXION - SLRY

- Agitators for minerals and metal industry offered, are robust designs with proven track records for a wide range of applications such as Crystallization, Dissolution, Extraction, Flotation, Leaching, Oxidation, Precipitation, Storage etc.

- Offerings to cater for metal slurries in Iron ore, Aluminium, Copper, Lead, Tin, Zinc, Gold, Silver, Molybdenum, Platinum, Rare Earths etc. & Non-metallic slurries like Phosphoric Acid, Potash, Clay, Magnesium Hydroxide/Mg(OH)2, Coal-Oil, Coal-Water etc

- The material of construction (MOC) can be any to suit the application like MS, SS304, SS316, 904L, Special Alloys etc

- Our largest installation is agitator with a shaft length of 30 meters, shaft diameter of 500NB and impeller sweep diameter of 6 meters.

MAVADRIVE

- Bottom and Top entry magnetic sanitary mixers a preferred choice for aseptic processes in biopharmaceuticals & biotech industry. A patented double acting impeller is designed to offer efficient mixing with improved self-cleaning

- Multiple stage impeller available for cell culture and microbial fermentation

- Options available to connect the agitator flange to the vessel (welded flange, plugin or bayonet flange)
The Propulsion you need
From lab-scale to large-sized efficient mixing solutions, our capabilities include:

- Special offerings like motors (FLP, Ex’d’, Ex’e’, Ex’n’), gearboxes (bevel, helical, planetary), sealing arrangements (API Plan 52, 53, 54) including ATEX certification & CE marking.
- In-house designing and manufacturing of agitators and special team assigned for their after-sales services like commissioning, supervision and erection activities.
- Expertise to offer unique material of construction including Titanium, Hastelloy, Monel and Inconel.
- Installation of over 100 large agitators with 30 meters long shaft and 6 meters impeller sweep diameter.
- Sanitary design mixing solutions for sterile applications with surface finish up to 420 grit.
- Offering special coatings or linings like Rubber, PTFE, Halar, FRP, PVDF.
VISUALIZATION OF MIXING PERFORMANCES

Computational Fluid Dynamics (CFD) is a fast and economical tool that offers insights into the overall mixing performance of the process equipment and is used to obtain multiple views, based on critical parameters. A large number of process-related questions can be analyzed in advance before any manufacturing step of equipment is started.

We have been successfully using CFD related to mixing/process technology and heat transfer. We have practical experience in verifying mixing systems and doing feasibility studies.
Unique testing facility present at our factory

Air run trials for agitators and mixers

Static & Dynamic Balancing Of Impeller Assemblies

Vibrations, noise levels testing

NDT tests including radiography, UT, PMI, dye penetration test
CERTIFICATIONS


→ U stamp and U2 stamp by ASME for the manufacturing of pressure vessel. NB stamp for National Board Registration of U & U2 stamped vessel

→ AD 2000-Merkblatt HP0 by TUV Nord for the manufacture of Pressure Vessels including mixers

→ DIN EN ISO 3834-2 (EN 729-2) by TUV Nord as welding workshop in the product range of Pressure Equipment (Pressure Vessels, Heat Exchangers, Columns, Glass Lined/Non-Glass Lined Reactors, Wiped Film Evaporators, Nutsche Filters/Filter Dryers

→ Pressure Vessels A1 (single Layered High-Pressure Vessels only), A2 by Special Equipment Licensing Office (SELO) for the supply of pressure vessels to the People’s Republic of China

→ IBR approved workshop for manufacturing of Pressure Vessels & Heat Exchangers under the inspection of IBR

→ Certificate of Manufacture Registration of Cylinder (Refrigerator & Special Equipment) by the Korean Gas Safety Corporation (KGS) for the supply of pressure vessels to the Republic of Korea
Our Story

Established in 1962,
GMM Pfaudler Limited is a leading supplier of engineered equipment and systems for critical applications in the global chemical and pharmaceutical markets. In 1999, Pfaudler Inc., a JV partner since 1987, increased its stake to 51%.

Pfaudler Inc. is a world-leading process solutions company, providing technologies, solutions, services and innovations to meet the specific requirements of its customers in the chemical, pharmaceutical and other process industries across the globe. Its technologies, solutions, innovations and services are trusted by over 90% of the world’s top ICIS chemical companies. Pfaudler’s Group companies comprise of the brands - Edlon, Interseal, Normag, Pfaudler, and Mavag.
Mavag AG

is a wholly-owned subsidiary of GMM Pfaudler, located in Neunkirch, Switzerland. It is a supplier of highly engineered Filtration & Drying Equipment and Mixing Systems to the pharmaceuticals, biotech and fine chemicals industries. Mavag’s product range includes the state-of-art Spherical Dryers, Filter Dryers, Funda Filters and Magnetic Drive Agitators. The company specialises in sterile and high containment applications.

In April 2019, GMM Pfaudler acquired the Industrial Mixing Solutions Division (IMSD) of Sudarshan Chemical Industries Ltd., Pune. With this acquisition, our existing mixing systems business, now called MIXION, is bigger than ever with the addition of new products, technologies, customers and industry segments.