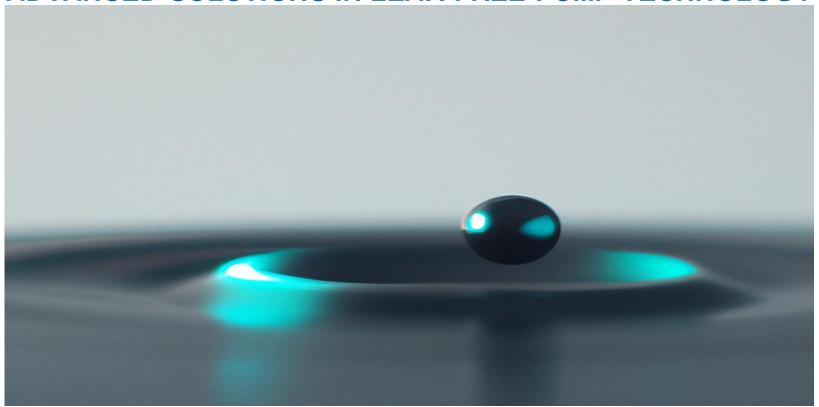
MARCH PUMPEN

ADVANCED SOLUTIONS IN LEAK-FREE PUMP TECHNOLOGY

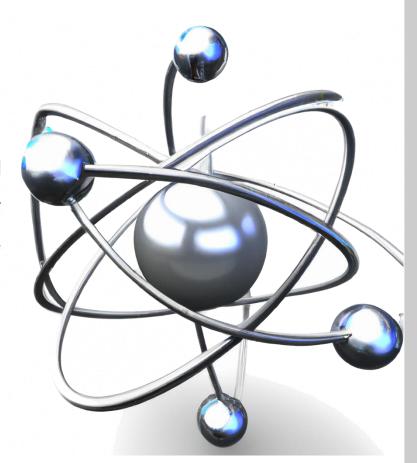






ABOUT MARCH PUMPEN

- Manufacturer of magnetic drive positive displacement pumps for chemical-, environmental- and OEM-Applications
- Specialists for high head / low flow applications
- Worldwide unique manufacturer of US-Patented and European-Patented Non-Metallic magnetic drive Gear Pumps made of solid plastic materials and sliding vane pumps
- Family-owned Company
- High quality Standard certified acc. to ISO 9001
- All pumps designed with 3D CAD, CFD and FEM
- Uncompromised customer focussed
- Excellent service and always close to our customers





HISTORY MILESTONES

1954

1982

1996

2019

MARCH PUMPEN released the US-Patent # US 10, 189, 005,B2 and the European Patent #EP3786416 for the non metallic pump series **TEF-MAG**® and **VANE-MAG**®.

MARCH Mfg. Inc. was founded on March, 1st 1954 in Chicago by the German Immigrant Family Zimmermann.

MARCH PUMPEN was founded by the English Man Mr. Neil Steadman and March Mfg. in Frankfurt/M (Germany) on March, 1st 1982 in order to act as the European distributor of MARCH Mfg. which held a minority share of 30% at the time.

Neil Steadman sold his shares to LogEtronics GmbH and to Thomas Wollmann.

2006

Thomas Wollmann bought the rest of shares from MARCH Mfg. and owns 100% of shares since that time. In the same time he evolved the company from a pump distributor to a pump manufacturer by developing and manufacturing magnetic driven pumps for high head/low flow applications.

1962

MARCH Mfg. released the first Us-Patent for small magnetic drive centrifugal pumps made in plastic up to 50 cbm/h.

1987

Thomas Wollmann, the current owner and CEO joined the company.

2002

Thomas Wollmann bought the shares from LogEtronics.

The company moved to new facilities in Giessen.

2011



Series: TEF-MAG®

US Patent No. European Patent No. # 10,189,005,B2 #EP3786416

Leak-free and magnetically coupled external gear pump, wetted parts entirely made of chemical resistant non-metallic materials.

Pump performance:

Capacity flow: 1,32 - 1255 U.S.gph [5 - 4750 I/h]

Differential pressure: 145.04 psi [10 bar] Temperature: 248 °F [120 °C]

Process Nozzles:

- Theaded NPT and BSP, Flanged ANSI and DIN

Motor Adaption:

NEMA and IEC

Materials:

- PP, PVC, PE, PVDF, PEEK

Applications:

- Metering pump for corrosive catalysts in Bio-Diesel plants
- Metering pump for acids in Li Ion Battery recycling plants
- Metering pump in dosing skids for water threatment processes
- Hydrogen electrolysis with potassium hydroxide
- CIP pump in pharmaceutical FDA and ATEX applications

- Low flow and high head characteristic
- Low, mid and high viscosity liquids
- Corrosive liquids
- No solids





Series: VANE-MAG® MP/MPA

Leak-free and magnetically coupled rotary sliding vane pump, wetted parts entirely made of chemical resistant non-metallic materials or high alloy stainless steel.

Pump performance:

Capacity flow: 1,32 - 740 U.S.gph [5 -2800 l/h] Differential pressure: 188.55 psi [13 bar] Temperature: 392 °F [200 °C]

Process Nozzles:

- Theaded NPT and BSP, Flanged ANSI and DIN

Motor Adaption:

NEMA and IEC

Materials:

- PP, PVC, PE, PVDF, PEEK, AISI316Ti, Hastelloy C 276

Applications:

- Metering pump for corrosive catalysts in Bio-Diesel plants
- Selective non-catalytic reduction of nitrogen oxides (SNCR process)
- Solvent metering pump for PVE production
- CIP pump in pharmaceutical FDA and ATEX applications

- Low flow and high head characteristic
- Low, mid and high viscosity liquids
- Corrosive liquids
- No solids





Series: M / EUROLINE

Horizontal, single-stage, magnetic driven chemical centrifugal pumps in close coupled design

Pump performance:

Capacity flow: 0.22 - 246.5 U.S.gpm $[0.05 - 56 \text{ m}^3/\text{h}]$

Differential head: 115 ft [35 m] Temperature: 392 °F [200 °C]

Process Nozzles:

- Theaded NPT and BSP, Flanged ANSI and DIN

Motor Adaption:

NEMA and IEC

Materials:

PP, PVDF, AISI316

Applications:

- Handling of aggressive, corrosive or hazardous fluids in chemical processing plants
- Transfer of solvents and acids in the pharmaceutical industry
- Supply of acids, alkalis and other chemicals in electroplating and surface treatment operations
- Transport of refrigerants and coolants in refrigeration and air conditioning systems
- Distribution of chemicals in the production of semiconductors and electronic components.

- High flow and low head characteristic
- Low viscosity liquids
- Corrosive liquids
- No solids





Series: MCA / MCH

Horizontal, single-stage, magnetic driven chemical standard pumps acc. to ISO 2858 in close coupled or process design.

Pump performance:

Capacity flow: 15.8 - 1500 U.S.gpm $[3,6 - 340 \text{ m}^3/\text{h}]$

Differential head: 311 ft [95 m] Temperature: 392 °F [350 °C]

Process Nozzles:

Flanged ANSI and DIN

Motor Adaption:

NEMA and IEC

Materials:

- PP, PVDF, AISI316, Super Duplex Steel, Hastelloy C

Applications:

- Recirculating hot water under high pressure in Gas-Turbine-Power-Plants
- Transfer of solvents and acids in the pharmaceutical industry
- Supply of acids, alkalis and other chemicals in electroplating and surface treatment operations
- Transport of refrigerants and coolants in refrigeration and air conditioning systems
- Distribution of chemicals in the production of semiconductors and electronic components.

- High flow and low head characteristic
- Low viscosity liquids
- Corrosive liquids
- No solids





Series: MT / MTA

Horizontal, gas entraining, magnetic driven regenerative turbine pumps in close coupled or process design.

Pump performance:

Capacity flow: 0.39 - 75 U.S.gpm $[0.09 - 17 \text{ m}^3/\text{h}]$

Differential head: 570 ft [174 m] Temperature: 392 °F [350 °C]

Process Nozzles:

Theaded NPT and BSP, Flanged ANSI and DIN

Motor Adaption:

NEMA and IEC

Materials:

PP, PVDF, AISI316, Super Duplex Steel, Hastelloy C

Applications:

- Refrigerant circulation in heating and cooling systems
- Hydrogen electrolysis with potassium hydroxide
- Transfer of solvents and acids in the pharmaceutical industry
- Circulation of process fluids in chemical reactors

- Mid flow and mid to high head characteristic
- Low to mid viscosity liquids
- Corrosive liquids
- No solids





Series: MARCH MASTER AIR

Self-priming, dry-running resistant, solid handling, air-operated double diaphragm pumps.

Pump performance:

Capacity flow: 2.2 - 282 U.S.gpm $[0.5 - 64 \text{ m}^3/\text{h}]$

Differential pressure: 121.8 psi [8,4 bar] Temperature: 220 °F [104 °C]

Process Nozzles:

Theaded NPT and BSP, Flanged ANSI and DIN

Materials:

PP, PVDF, AISI316

Applications:

- Transfer of abrasive and viscous fluids such as paint, glue, and adhesives in the automotive and construction industries
- Handling of chemicals, acids, and alkalis in the chemical processing industry
- Transfer of wastewater and slurry in the wastewater treatment industry
- Transfer of abrasive slurries in the ceramic and glass manufacturing industries

- Mid to high flow and mid to high head characteristic, pulsating
- Low to high viscosity liquids
- Corrosive and non-corrosive liquids
- Can handle solids





Series: CODIP

Self-priming, dry-running resistant, solid handling, air-operated tubular diaphragm pumps.

Pump performance:

Capacity flow: 2.2 - 92.5 U.S.gpm $[0.5 - 21 \text{ m}^3/\text{h}]$

Differential pressure: 121.8 psi [8,4 bar]
Temperature: 56 °F [180 °C]

Process Nozzles:

- Flanged ANSI and DIN

Materials:

- PTFE

Applications:

- Sampling systems
- Transfer of unknown chemical waste
- Handling hot corrosive liquids like Sulfuric Acid, Hydrochloric Acid, Hydrofluoric Acid etc.
- Pharmaceuticals in FDA application

- Low to mid flow and mid to high head characteristic, pulsating
- Low to high viscosity liquids
- Corrosive and non-corrosive liquids
- Can handle solids





CUSTOMER REFERENCES

ABB, Asea Brown Boveri Ltd
Airbus SE
AIR LIQUIDE
Alzchem Group
BASF AG,
BAYER AG
BIO D. S.A.
Boehringer Ingelheim Pharma
BUNGE Group
Cannon Group
Continental Group
Daimler Group
DSM Nutrition Products
Dow Corning Group
Dow Silicones

E.ON Power Plants

Ferrostaal Air Technology

Evonik Industries

Fraunhofer Institut Hanon Systems GmbH Health Tronics Inc. HEAT gas technologies GmbH **HECKLER & KOCH GmbH** Henkel KG &Co. KGa Hydrogenious LOHC Technologies Johnson Controlls Ferrostaal Air Technology Fraunhofer Institut Johnson Controlls Johnson & Johnson MEDICAL Johnson Matthey K & S Minerals and Agriculture **KSB Service** KATHREIN-Werke KG Keppel Seghers Engin Singapore Pte Liebherr Group

LyondellBasell Industries Holdings MAX STREICHER Anlagentechnik Merck KGaA Mercedes-AMG Petronas Motorsport Mobil Oil Pietro Fiorentini S.p.a PT. PELITA AGUNG AGRINDUSTRI Ratiopharm Pharma GmbH **RWEAG** Sartorius Stedim Systems Siemens energy AG Solvay Group Speira Group **TENOVA Group THOR Specialties** thyssenkrupp AG Umicor GmbH & Co. KG Ziehm Imaging GmbH



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