VACUUMMASTER

ABOUT THE VACUUMMASTER

The **VacuumMaster** is the most energy efficient and flexible multi purpose mixer on the market:

- Low energy consumption/high efficiency
- High shear rate
- High mixing rate
- Fast and easy installation
- Low service cost - few wear parts
- Hygienic design in compliance with EHEDG
- Step-file avaiable on inquiry

The **VacuumMaster** is developed for products with medium to high viscosities and is designed with a directly driven high shear mixer at the bottom and top mounted agitator.

SPECIFICATIONS

The **VacuumMaster** represents the next generation of mixing solutions for the process industry.

Not only is it more compact and perfectly optimised for energy-efficient high shear mixing, it is also virtually maintenance-free.

The vacuum feature allows automatic handling of the powder dosing directly from big bags or silos. By means of vacuum the powder is drawn into the mixer below liquid level and instantly wetted. The powerful, high shear mixer generates a controlled vortex in the tank.

The combination of vortex and vacuum effectively separates air from the liquid and generates a perfect homogenous dispersion within seconds.

The result is a highly stable and homogenous, air- and lump-free end product.

Depending on the selected options, the mixer can be used as a batch mixer or as an in-line mixer. For in-line mixing a circulation loop is required.

APPLICATIONS

The **VacuumMaster** can be used for various applications e.g.:

- Products for spray drying
- Soft drinks
- Ice cream
- Sugar solutions
- Pectin solutions

- Syrup
- Slurries
- Soups
- Recombined milk-based products
- Etc.

The final product should be pumpable with a centrifugal pump - up to 500 cP. Depending on type of viscosity (Shear sensitive e.g. Ketchup) products with up to 2.000 cP can be processed. For viscosity above 2000 cP, a Daniatech ProcessMaster is recommended.

Daniatech
SiccaDania

EQUIPMENT

STANDARD EQUIPMENT:

Mixer unit (WEG) with flushed mechanical shaft seal (requires frequency control)
Vacuum pump with water-saving unit (requires frequency control)
3-way valve for CIP of vacuum pipe
Cleanable vacuum system
Manway with safety sensor
Inspection glass with wiper / inspection glass with LED light source (Lumiglas)
2 x powder valves with Alfa Laval LKLA actuator (butterfly)
1 x outlet valve with Alfa Laval LKLA actuator (butterfly)
2 x rotating spray balls with 3-way valve from vacuum pipe (Alfa Laval Uniq type 21)
2 x level sensors top & bottom (IFM)
Temperature and pressure transmitter (IFM)
Fittings: TRI-Clams, SMS or DIN-ISO

OPTIONS

Powder hoppers (100l, 250l, 500l, 1000l & 2000l)
Powder hopper for small ingredients incl. butterfly valve
Extra powder valve 2½" butterfly / extra inlet in top
MCC panel with inverters
I/O Panel for connection tocentral control
Outlet pump
Load cells (2 pc global weighing) with transmitter in stainless box
Insulated jacket
Process valve - dfferent type (GEA, SPX, etc.)

TECHNICAL DATA

Model:	Mixer size	Product density:	Viscosity	Mixer effect:	Vacuum volume
250	160	1-1,35 kg/l	1-2000 cp	11-18,5 kW	3 kW
500	160	1-1,35 kg/l	1-2000 cp	18,5-22 kW	3 kW
1000	200	1-1,35 kg/l	1-2000 cp	22-30 kW	5.5 kW
2000	250	1-1,35 kg/l	1-2000 cp	45-55 kW	5.5 kW
3000	325	1-1,35 kg/l	1-2000 cp	55-75 kW	7.5 kW
5000	325	1-1,35 kg/l	1-2000 cp	75-90 kW	7.5 kW

Model:	Outlet/U	Powder valve	CIP	Inlet	Service Water	Dimensions (H x W x D)	Shipping weight	Shipping volume
250 L/H	Ø51/650mm	1 x Ø51 1 x Ø63,5	Ø51	1x Ø51	100 L/h	2200 x 1200 x 900 mm	600 kg	2.3 m³
500 L/H	Ø51/650mm	1 x Ø51 1 x Ø63,5	Ø51	1x Ø51	100 L/h	2400 x 1300 x 1000 mm	900 kg	3.4 m³
1000 L/H	Ø63,5/650mm	1 x Ø51 1 x Ø63,5	Ø51	1x Ø51	100 L/h	3400 x 1400 x 1200 mm	1400 kg	5.7 m³
2000 L/H	Ø63,5/1000mm	2 x Ø63.5	Ø51	2x Ø51	100 L/h	3800 x 2000 x 1700 mm	1800 kg	13 m³
3000 L/H	Ø76/1200mm	2 x Ø63.5	Ø51	2x Ø51	150 L/h	4300 x 2500 x 2000 mm	2200 kg	21.5 m³
5000 L/H	Ø76/1200mm	2 x Ø63.5	Ø51	2x Ø51	150 L/h	4600 x 2600 x 2200 mm	2300 kg	26 m³