



 **SOFRADEN**

A subsidiary of **VINCI** 
ENERGIES



BLADES INTENSIVE MIXERS
FOR BATCH
AND CONTINUOUS
OPERATIONS

MIB - MIC

www.sofraden.com



Designed around our patented 'PHR' mixing blades, our powerful range of intensive mixers ensures **efficiency** and **productivity** of your production processes.

Dedicated to powders and granulates, the design of the machine, combined with our special 'PHR' blade tools, provide high mixing quality by creating a 3D flow of the various particles of materials in the vessel.

SOLUTION FOCUSED ON 4 KEY POINTS

- **Performance:** high dispersion quality with a very short mixing time
- **Flexibility:** cover basic applications as well as the most complex ones. Broad operating range for each nominal size of machine
- **Scalability:** many options to customize your mixer, to comply with your needs and with the product characteristics
- **Cleanability:** "easy-to-clean" design, combined to our very efficient CIP system, ensures you an excellent quality of cleaning



Our range of intensive mixers consists in **'MIB'** mixers for **batch-type processes**, and **'MIC'** mixers for **continuous-type processes**.

Both these families share the same main features: horizontal vessel with a single central rotor shaft, and blade mixing tools.

Each family comes with 2 unloading configurations: full opening or local discharge outlet for the 'MIB', and overflow or direct discharge outlet for the 'MIC'.

The **heavy duty design** of our mixers ensures you a high level of reliability and minimum maintenance costs.

REFERENCES

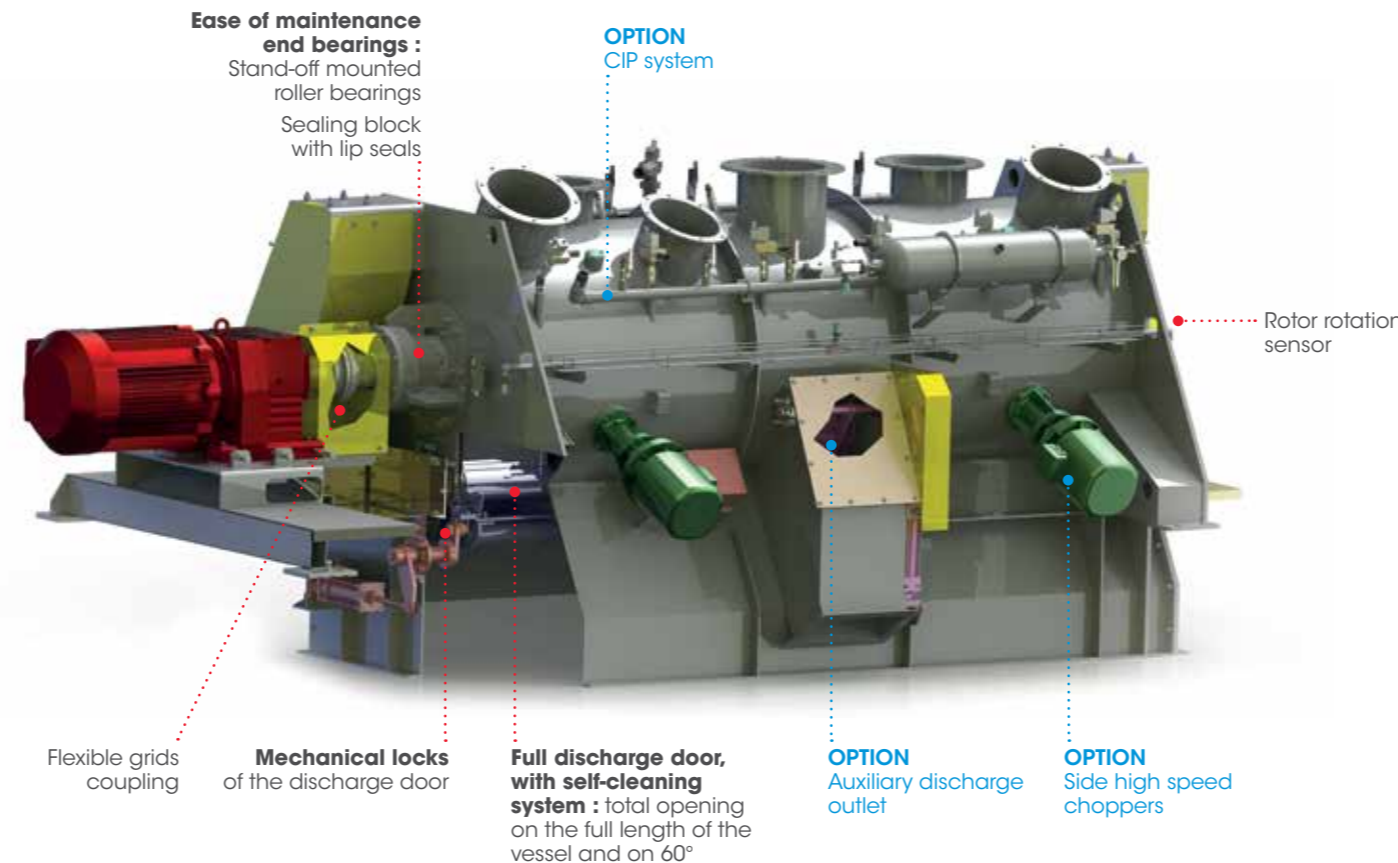
Saint-Gobain Weber, Valéo, Eramet, Knauf, LDC Huttepain, Holcim, BASF, AkzoNobel, Philicot, Sika, Bostik, Arkema, Amora, ParexLanko, Séché Environnement, Saint Louis Sucre...

ACTIVITY

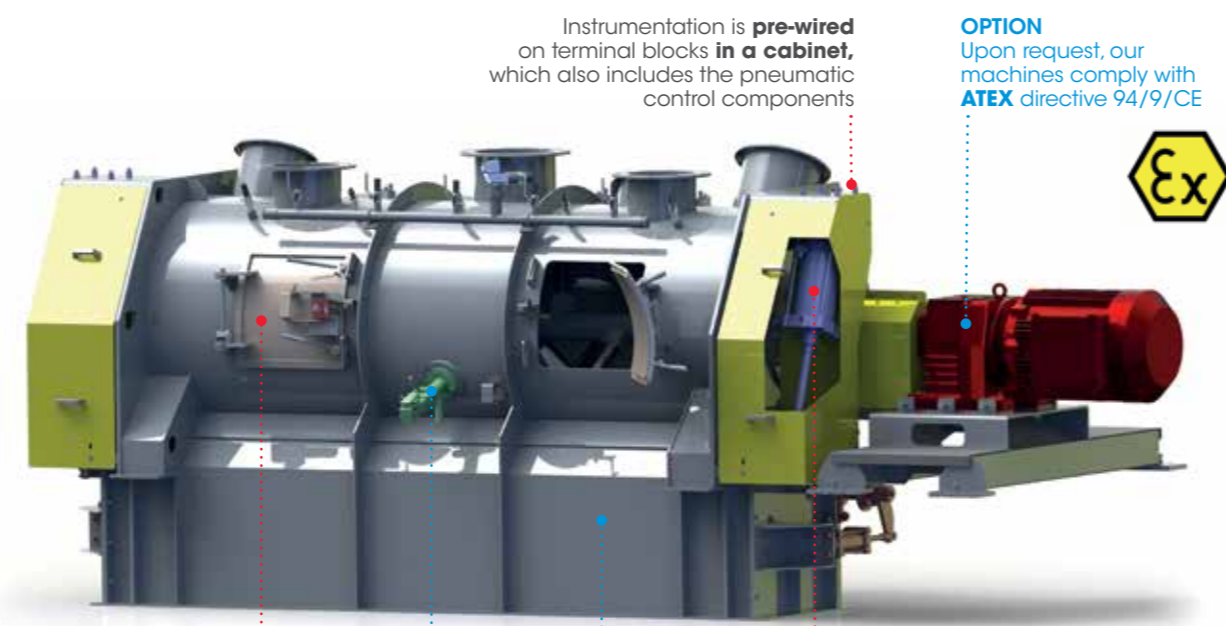
Chemistry, agro food, animal nutrition, materials for building construction...

APPLICATIONS

All types of industries involving powders such as: sugar, flour, carbonate, sand, lime, metallic powders, pet food...



GENERAL OVERVIEW MIBVI 110L



Easy & secure access: trapped key latch lock

OPTION
Sampler

OPTION
Can be manufactured with wide range of materials: SS 304L, SS 316L, Hardox...

Every jack has its own electro-pneumatic control & sensors

MAIN FEATURES OF THE MIB BATCH MIXER

TYPE	Max. capacity	Ø tank (mm)	Length of tank (mm)
MIB 039 D	35 ltr	Ø 390	430
MIB 049 D	70 ltr	Ø 490	540
MIB 058 D	120 ltr	Ø 580	660
MIB 058 C	190 ltr		1045
MIB 058 M	240 ltr		1280
MIB 058 L	260 ltr		1465
MIB 070 C	350 ltr	Ø 700	1310
MIB 070 M	400 ltr		1530
MIB 070 L	450 ltr		1750
MIB 086 C	600 ltr	Ø 860	1530
MIB 086 M	750 ltr		1915
MIB 086 L	1000 ltr		2465
MIB 110 C	1250 ltr	Ø 1100	1890
MIB 110 M	1500 ltr		2250
MIB 110 L	2000 ltr		2990

TYPE	Max. capacity	Ø tank (mm)	Length of tank (mm)
MIB 135 C	2500 ltr	Ø 1350	2490
MIB 135 M	3000 ltr		2970
MIB 135 L	3500 ltr		3490
MIB 155 C	4000 ltr	Ø 1550	2990
MIB 155 M	4500 ltr		3445
MIB 155 L	5000 ltr		3870
MIB 180 C	6000 ltr	Ø 1800	3375
MIB 180 M	7000 ltr		3955
MIB 180 L	8000 ltr		4500
MIB 215 M	9500 ltr	Ø 2150	3750
MIB 215 L	11500 ltr		4500



To fully comply with your needs, we suggest **2 unloading configurations for the whole range:**

MIBVI
Family

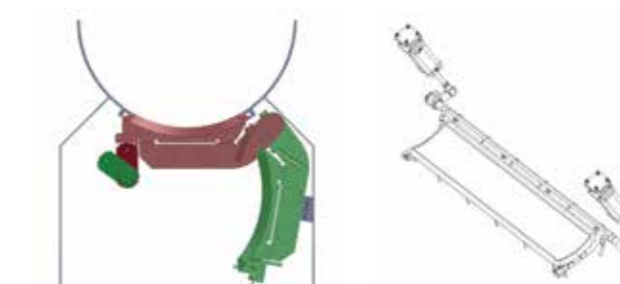
The most efficient solution, with a full discharge door

- Residue-free emptying solution (<1% cca)
- Very quick-acting discharge solution
- Leak-proof solution
- Safe solution, thanks to the mechanical locks of the discharge door

MIBVP
Family

Alternative solution, with one or several 'local' discharge traps

- Compact solution: no need of a downstream collecting hopper
- No retention of material upon the 'flush mounted' discharge trap
- Cheap solution, but with some product remaining in the tank after the discharge sequence



OPTIONS OVERVIEW

Wear-resistant solutions

Your process involves some **abrasive materials?**

Improve the service life of your equipment, by using:

- Special wear resistant steel for the tank & tools
- Covering of the inner wall of the tank with some removable "shielding plates"
- Coating of the blades with tungsten carbide



CIP solution

Avoiding cross-contamination between batches is mandatory in your process?

Equip your MIB solution with our CIP system:

- High efficiency cleaning of the mixer, with short time sequence
- Fully automated solution: reproducible results, steady quality of your product, no human risks factors
- Compact system based on pneumatic jet cleaning, combined with an evacuation with air flushing into the vessel



Sampler

Your traceability method is based on **sample-based controls?**

Take a sample of mixed product directly from the tank of the mixer, and give it to your laboratory.



Side high speed choppers

Your process involves some **complex materials**, like pigments?

Increase the dispersion of these components, and break up the lumps by using our high speed choppers to obtain a reproducible tint, and a homogenous lump-free mix.



Liquid spraying solutions

You need to make "dust-free" products, or your process requires the **addition of liquids** in the batch?

Equip your MIB solutions with some spraying nozzles, up to the supply of the "plug & play" solution with a 'dosing skid' for 2 IBC.



Thermal process solutions

Your process involves some **thermal sensitive materials?**

Our MIB solutions can be provided with jacket, designed to work under vacuum...

Combining those features, MIB can be used for vacuum-drying operations.



Auxiliary discharge outlet

You need to direct your mixed product to **multiple packaging lines?**

Equip your MIB solution with our compact "side outlet" device, which gives you a 2nd direction for your MIB 'VI' mixer.



FOCUS ON OUR CONTINUOUS SOLUTIONS MIC MIXERS

Main Features of the MIC continuous mixers

TYPE	Nominal outflow	Ø tank (mm)	Length of tank (mm)
MIC 026	1 - 4 m ³ /h	Ø 260	1000 - 2500
MIC 039	3 - 7 m ³ /h	Ø 390	1000 - 3000
MIC 049	7 - 13 m ³ /h	Ø 490	1000 - 3500
MIC 058	12 - 18 m ³ /h	Ø 580	1500 - 3500
MIC 070	18 - 31 m ³ /h	Ø 700	1500 - 4000
MIC 086	30 - 70 m ³ /h	Ø 860	1800 - 4000
MIC 110	70 - 130 m ³ /h	Ø 1100	1800 - 4000
MIC 135	130 - 270 m ³ /h	Ø 1350	1800 - 4500
MIC 155	250 - 350 m ³ /h	Ø 1550	1800 - 4500
MIC 180	350 - 490 m ³ /h	Ø 1800	1800 - 4500
MIC 215	480 - 680 m ³ /h	Ø 2150	1800 - 4500

NB: these values are only guidelines, as the final pair 'diameter/length' is determined according to the required resident time in the vessel.



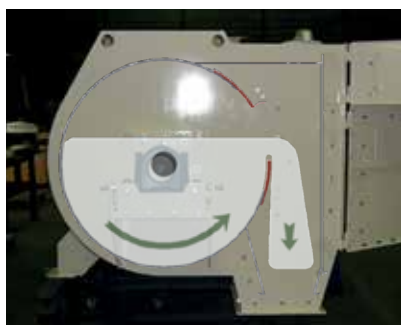
Can be customized with most options of the 'MIB' family (choppers, wear resistant solutions, liquid spraying...)

To fully comply with your needs, we suggest **2 unloading outlet configurations, for the whole range:**



The "overflow discharge" solution

- Steady, but adjustable, volume of material is kept in the vessel
- Improvement of the mixing action
- Material stays longer in the vessel



Bottom discharge nozzle solution

- Best suited in applications where high intensity and low retention time are needed
- Cost-effective solution



TEST

OUR TEST CENTER IS EQUIPPED WITH:

- 1 MIB 058M 'VI' batch mixer, provided with 2 choppers and 2 nozzles for liquid spraying
- 1 MIB 039s 'VP' batch mixer, provided with a jacketed vessel for heating/cooling, vacuum design (2mbar abs.) and 1 chopper

These machines are at your disposal to run tests and validate your processes.



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