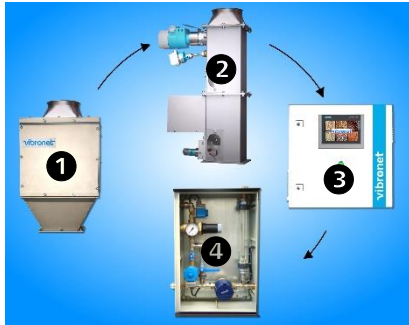


VIB-MMS[®] - AUTOMATIC CEREAL AND PULSE MOISTURE CONTROL AND WATER DOSAGE



VIB-MMS[®] is an automatic moisture control and water dosage device for all free flowing cereals and pulses to ensure a constant and uniform moisture level in grains and end products for optimal plant performance. An integrated continuous flow metering system for throughput measurement is an optional addition. The device consists of four modular robust components: scale, moisture measuring unit, control panel, and water dosage unit.

VIB-MMS[®] ADVANTAGES AND APPLICATIONS

- Accurate detection of initial moisture content
- Precise automatic water dosage
- Exact hectoliter weight (specific weight) measurement
- Rigorous flow metering of throughput rate
- Compact and robust design
- For all dry and free flowing cereals, pulses and granular products

VIB-MMS[®] FUNCTIONS

1 THROUGHPUT MEASUREMENT WITH VIB-SMW[®] OR VIB-TS[®]

The VIB-SMW[®] control scale is a very robust continuous stainless steel impact weigher for free flowing bulk materials with throughputs up to 50tph. The measuring unit has a very low overall height and is maintenance-free due to no loose or moving parts. It has a high measurement accuracy of $\pm 0.2\%$.

The volumetric throughput control VIB-TS[®] is a space saving and economic alternative when installed together with a vibronet[®] vibration dampener. The measuring sensor is mounted directly to the discharge unit of the vibration dampener for a volumetric throughput measurement and requires no extra space or maintenance.



2 INITIAL MOISTURE MEASUREMENT = VIB-MMS[®] MEASURING UNIT

The stainless steel measuring channel is of very compact and robust built. It continuously measures the initial product parameters moisture [%], temperature [°C] and hectoliter weight (bulk density) [kg/hl] of all free flowing granular material such as e.g. cereals, pulses, etc. It is installed in front of the vibration dampener[®] or any other dampening system.



3 DATA PROCESSING AND DISPLAY = VIB-MMS[®] CONTROL UNIT

The control panel with color touch screen powered by SIEMENS has an easy menu guidance and calculates the necessary water addition to reach the desired target moisture. Display of (a.o.):

- | | |
|--|--|
| ▪ Currently selected product [10 products] | ▪ Throughput [kg/h] |
| ▪ Actual Moisture /Target Moisture [H ₂ O%] | ▪ Throughput Counter: Pre-selection and Totalizing |
| ▪ Actual Water/ Target Water [l/h] | ▪ Alarm/Pre-Alarm Status with Delay Timer |
| ▪ Actual Hectoliter Weight [kg/hl] | ▪ 72h Graphic Visualization |
| ▪ Actual Product Temperature [°C] | ▪ Analogue Output /Impulse Output |
| ▪ Actual Water Totalizing Counter [m ³] | ▪ Automatic and Manual Water Dosage Operation |



4 WATER AND LIQUID DOSAGE = VIB-MMS[®] DOSAGE UNIT

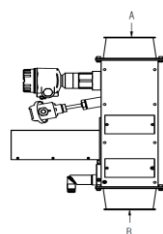
The water dosage cabinet doses the precisely calculated liquid quantity directly into the vibration dampener vibronet[®] or any other dampening system. Operable in automatic or manual mode. Available with integrated heating and in PVC version. For water and water with soluble additives. Available also as a manual water dosage unit without housing VIB-ECONO[®]. When mounted together with a vibronet[®] dampener, the water dosage is mounted space saving and cost-effective into the vibronet[®] water distribution unit.



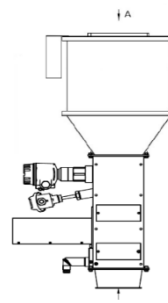
VIB-MMS® TECHNICAL DATA

APPLICATION / PRODUCTS	Dry, cleaned, aspirated, free flowing granular products, cereals, pulses
DOSING MEDIUM	Water (filtered), water with soluble additives
DESIGN MEASURING UNIT	- Versions: For ≤ 12.5 tph or ≤ 1 tph throughput capacity [basis: dry, cleaned wheat] - Components: Temperature sensor, moisture sensor, hectoliter weight scale - Materials: Robust hygienic stainless steel, PVC
DESIGN WATER DOSAGE CABINET	- Versions: Integrated in vibronet® water cabinet or stand-alone - For automatic or manual water dosage - Enclosure: Stainless steel, for wall mounting - Components [a.o.]: Solenoid valve, pressure reducer, control valve, water meter, flow meter, manual dosing valves - Materials [standard version]: Stainless steel/ brass/ PVC - Dosage capacity: According to customer requirement - Connection sizes: $\frac{1}{2}$ "/ $\frac{3}{4}$ "/ 1" according to l/h dosed
DESIGN CONTROL PANEL	- Cabinet for wall mounting powered by Siemens, painted RAL9003 high gloss - Integrated color touch screen, menu-driven, multi-lingual - Incl. potential-free contacts, 1x analogue output 4-20mA, 1x impulse output
MEASUREMENT RANGE	Product-specific calibration, recipe management for 10 products
TEMPERATURE RANGE	0- 55°C
WATER CONNECTION	Minimum 3–6 bar operating pressure [according to l/h dosed]
DIMENSION MEASURING UNIT [LWH] [mm]	Version I : 180 x 410 x 614 Version II : 180 x 410 x 555
DIMENSIONS CONTROL PANEL [LWH] [mm]	600 x 210 x 600
DIMENSIONS WATER DOSAGE [LWH] [mm]	400 x 200 x 600 [standard version]
DIMENSIONS THROUGHPUT CONTROL [LWH] [mm] [OPTION]	VIB-SMW®: ≤ 12.5 tph: 350 x 350 x 490 ≤ 25 tph: 530 x 388 x 607 ≤ 50 tph: 536 x 586 x 1.251 VIB-TS®: Mounted directly to the vibronet® discharge unit at no extra space
WEIGHT [INCL. CONTROL PANEL]	approx. 60 kg
OPERATING VOLTAGE	120/230V, 50/60Hz, L1/N/PE
CONNECTED LOAD	0.3 kW
CABLE LENGTH	- Pre-cabled: Cables fixed at measuring/ dosing unit, fitted with plugs at the control cabinet - Cable length b/w measuring and dosing unit and the control cabinet: 5 m [longer cable upon request]
OPTIONS	- Integrated throughput measurement VIB-TS® or VIB-SMW® - Integrated temper time control VIB-SMC® - Integrated fine water filter/ backwash water filter - Water dosage integrated in vibronet® vibration dampener water cabinet - Dosage version for water with corrosive additives - Heating unit integrated into the dosage unit - Profibus, Profinet, Siemens sm@rt server for remote control [others on request]

*Subject to error and technical modification



VIB-MMS® measuring unit



VIB-MMS® with integrated scale VIB-SMW®



MANUFACTURER AND GLOBAL DISTRIBUTOR

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