Vezin Sampler with Mixing Tank (VSMX)

Contact us directly.

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What does it do?

The Vezin Sampler Mixing Tank (VSMX) consists of two combined units. The Vezin sampler is designed to extract increments from a vertically falling primary material stream (see VS). The second unit, the mixing tank (MX), collects a specified number of extracted increments in a mixing and homogenising tank. This unit ensures that the primary sampled material at all times is well mixed by means of an impeller and thus represents the average primary material captured by the VS.

What's the benefit?

The Vezin Sampler with Mixing Tank (VSMX):

- An efficient sampling solution combining two parts of the sampling operation into one step.
- Well suited for relatively small volumes of bulk material in particular powdered material with lumps up to 40 mm.
- Highly accurate and robust.
- Designed for primary, secondary, and tertiary cross-stream sampling of falling streams of material.
- Equipped with an easily accessible hatch for optimal inspection and maintenance process.
- Easy to install and operate.

How does it do it?

The first unit, the VS, is fully enclosed by a funnel-shaped housing which supports a gear motor driving a vezin type cutter rotating around a vertical axis. The cutter head is radially delineated with dimensions and working velocity designed to be individually optimized for each specific material. A hatch on the top of the VS allows easy access for easy access for cleaning, maintenance, inspection, and exchange of cutter heads.

When triggered the VS extracts a representative increment per rotation which is ducted directly into the second unit, the mixing tank (MX). After each completed rotation, the cutter is parked in a safe position away from the material flow (avoiding influx of extraneous material and cross-contamination of sample). Reject material passes directly through the VSMX. Acceleration and deceleration from the parking position takes place well outside the cutting zone, ensuring a constant operational cutter speed.

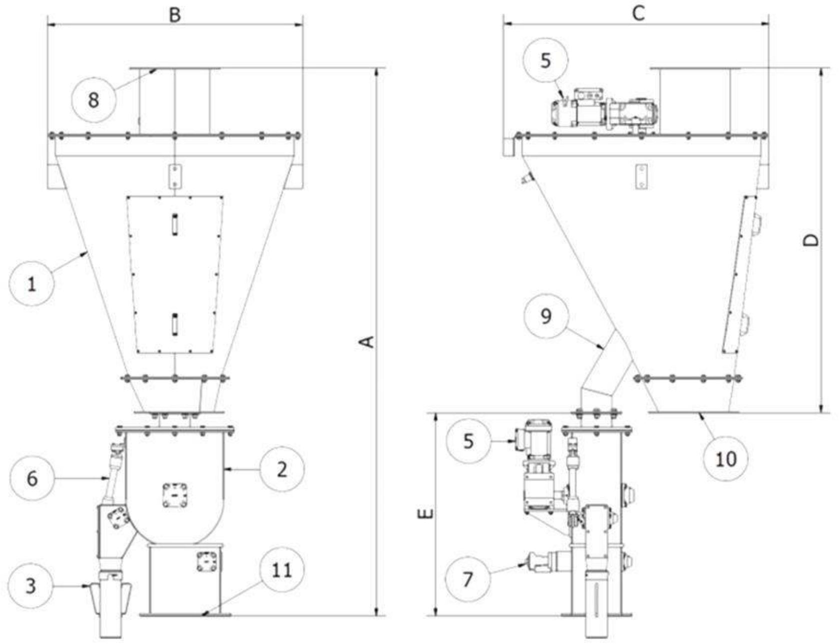
This second unit MX ensures that the sampled material at all times is being mixed by means of an impeller and represent the average material captured by the VS. The mixing tank can be provided with an observation window and has an overflow to safeguard against overfilling. Excess sample material is returned to the main material stream passively by gravity. The mixing tank can be discharged by means of an automatic operated gate at the bottom of the mixing tank. The material can be discharged into either a bucket or into a chute for further processing.

Specifications:

Housing:	Stainless Steel AISI 304/316 or painted carbon steel
Railing system:	Stainless Steel AISI 304/316 or painted carbon steel
Carriage:	Stainless Steel AISI 304/316 or painted carbon steel with Hardox impact plate
Instruments:	Inductive Position switches.
Gear Motor:	SEW or equivalent.

The VS is delivered with either a local control unit or/and is controlled by a M&W central control cabinet depending on concept and preference. The M&W central control cabinet consist of motor control center, circuit breakers, PLC-system, and man machine interface.

Drive sampler type:	Helical geared motor and toothed V-belt drive
Mixer type:	0.55 kW geared motor, 4 pole, 36 rpm.
Outlet mixer type:	Hydraulic actuator. Voltage: 3 x 400 V, 50 Hz

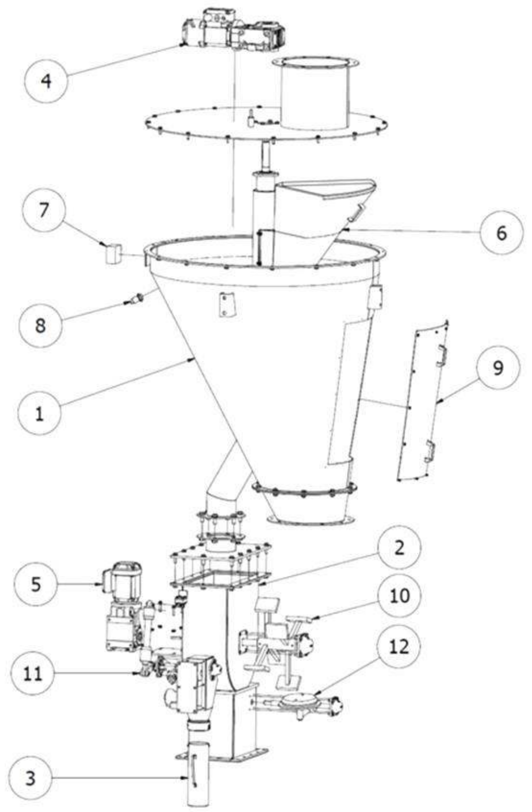


PARTS LIST	
Item	**Description**
1	Vezin sampler (VS)
2	Mixing tank (MX)
3	Sample container
4	VS draving motor
5	MX driving motor
6	Hydraulic piston
7	MX controlling motor
8	VS inlet
9	VS sample outlet and MX inlet
10	VS reject outlet
11	MX outlet

DIMENSIONS		
Label	**Description**	**Value [mm]**
A	Height	2800
B	Width	1300
C	Length	1350
D	Height of VS unit	1750
E	Height of MX unit	1050

2D Drawing of VSMX in typical scope.
Presented dimensions are guiding.

Dimensional Drawing



PARTS LIST	
Item	**Description**
1	Vezin sampler (VS)
2	Mixing tank (MX)
3	MX sample container
4	VS driving motor
5	MX driving motor
6	VS sample bucket
7	VS junction box
8	VS inductive sensor
9	VS inspection hatch
10	MX mixer
11	MX sample control
12	MX outlet control

2D Drawing of VSMX in exploded view.
Shown in typical scope.

Exploded view

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3D illustration of a VSMX in typical scope.

3D Drawing

3D illustration of the VSMX in use with material. Shown in a typical scope.

3D Drawing with material

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3D illustration of the size of the product in respect to a person. The VSMX is shown in a typical scope.

Illustrative drawing

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Variants/Options.

Option 1
The M&W Jawo Sampling central control cabinet can exchange signals with the client's control system.

Nota Bene 1
Vezin Samplers can be calibrated with respect to the client's material(s) and local sampling conditions. M&W Jawo Sampling offers clients a facility for quantitative assessment of the performance of the VS on the client's own material(s), following one of several types of tests, e.g. Replicate Experiment (RE) or variographic characterisation.

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What is the standard?

M&W JAWO Sampling equipment and sampling systems operate in accordance with approved international material standards such as ISO, ASME, GOST, EN as well as DS3077 (2013). All sampling equipment and solutions aim for compliance with the principles laid down in the Theory of Sampling (TOS) and gives our customers reliable knowledge of the material properties such as moisture content, particle size distribution, mineral proportions, and content grade essential for commercial, operational, and technical characterization.

About M&W.

MARK & WEDELL

Mark & Wedell A/S (M&W) is a global mechanical/electrical engineering and manufacturing company. M&W serves a solid and growing international customer base within the global mining-, minerals-, metals-, power generation- and big science markets.

We develop, engineer, and produce high quality mechanical and electrical machines, instruments, and solutions. Our brand JAWO and unique know-how is well recognized in our markets and among our customers due to more than 40 years of experience.

M&W JAWO

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