



The VB series is made up of vertical vibrators with double conical flange. These vibrators are typically used in circular screens and in medium-size and large sieves. They are supplied without eccentric weights, which must be realised and mounted by the manufacturer of the vibrating machine.

The VB series complies with the most recent IEC and EN international standards for use in atmospheres with potentially explosive powders. In particular, the VB series can be used in areas 21 and 22.

Category: II 2 D

Level of protection: tD A21 IP66

Temperature class: 150°C

EC certificate: LCIE 05 ATEX 6163 X

Zones of use: 21, 22

Technical features

Power supply

Three-phase voltage from 220V to 690V, 50Hz or 60Hz; suitable for use with an inverter from 20Hz to the base frequency with constant torque load profile

Polarity

4 and 6 poles.

Conformity with European Directives

Low voltage 2006/95/EC, ATEX 94/9/EC.

Reference Regulations

EN 60034-1, IEC/EN 61241-0, IEC/EN 61241-1

Functioning

Continual service (S1) at maximum declared centrifugal force and electric power. Intermittent services are also possible depending on the type of vibrator and the operating conditions. For detailed information, contact our technical assistance office.

Centrifugal force

Proportioned for a centrifugal force equal to 5000 Kg. (49 kN), with eccentric weights not included, to be made by the user.

Mechanical protection

IP 66 according to IEC 529, EN 60529.

Protection against mechanical impacts

IK 08 according to IEC 68, EN 50102.

Insulation class

Class F (155°C), class H (180°C) on request.

Tropicalization

Standard on all vibrators with "drop by drop" trickle system.

Ambient temperature

From -20°C to +40°C. Versions for higher or lower temperatures are available on request.

Vibrator thermal protection

On PTC rated request with thermistor heat detectors 130°C (DIN 44081-44082). Also on request thermistors with different temperatures and anti-condensation heaters.

Fixing of the vibrator

In all positions and therefore without restriction.

Lubrication

All vibrators are lubricated in the factory and do not require further lubrication if used in normal operating conditions ("FOR LIFE" lubrication). In heavy duty operating conditions periodical re-lubrication may be applied.

Electrical connection box

The size guarantees passage of tools used for fixing the vibrator to the vibrating machine. The electrical connection must be carried out using the relative connectors inserted inside the connection box.

4 poles - 1500/1800 rpm / 6 poles - 1000/1200 rpm

	Description					Mechanical specifications						Electrical specifications						
	Code	Type	Poles	II2D Temp. class	Ex	Giri/min.		Centrifugal force				Weight kg	Max input power W		Max. current A		I _a /I _n	
						50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz		50 Hz	60 Hz	400 V 50 Hz	460 V 60 Hz	50 Hz	60 Hz
three-phase	601223	VB 15/2510-D	4	• 150°C		1500	1800	2500	2500	24.5	24.5	68	2016	2600	3.60	4.10	3.50	3.58
	602171	VB 10/2510-D	6	• 150°C		-	1200	-	2500	-	24.5	68	-	2100	-	3.22	-	3.27
	601378	VB 15/5000-LM	4	• 135°C		1500	1800	5000	5000	49.0	49.0	101	3600	3400	6.00	5.00	7.02	8.00

I_a/I_n = ratio between start-up current and maximum current.

Certifications



Regulation CAN/CSA - C22.2, N. 100-95,
file n° LR 100948 Class 4211 01
– Motors and generators.



Certificate of Conformity
n° IECEx CES 09.0001X
following standards IEC 61241-0, IEC 61241-1.



Mechanical protection IP66 (EN 60529),
protection against impacts IK 08
(EN 50102)



Comply with the applicable
European Union directives



II 2 D, tD A21 IP66
IEC/EN 61241-0, IEC/EN 61241-1
Certificate n. LCIE 05 ATEX 6163X



KOSHA Korea
Certificate n° 11-AVG BO-0359
Ex td A21 IP66



Certificate GOST-R
n° POCC IT.AB72.B03026,
standards GOST R 51330.0-99,
GOST R 51330.8-99,
GOST R IEC 61241-1-1-99



Upon request available version VB-C
Class I, Div. 2, Groups ABCD
standards CAN/CSA-C22.2



Special shaped terminals allow to fix the power supply cable, protecting it from loosening.

Electric motor

Three-phase asynchronous type. Designed for maximum starting torques and torque curves specific to requirements of vibrating machines. Insulated windings using “drop by drop” trickle system with class H resin. The rotor is die cast aluminium.

Casing

In spheroidal cast iron to have high strength and optimal elasticity.

Bearing flange

Constructed in spheroidal cast iron. The geometry of the flange transmits the load to the casing uniformly.

Bearings

Custom made with particular geometry, especially designed for Italvibras, suitable to support both high radial and axial loads.

Motor shaft

In treated steel alloy (Isothermic hardening) resistant to stress.

Eccentric weights

Not envisioned, to be made and mounted by the user.

Weight covers

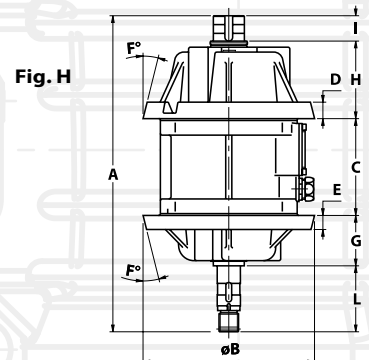
Not envisioned.

Painting

Electrostatic surface treatment based on polymerised epoxy polyester powder in oven at 200°C. Tested in salt spray for 500 hours.

Stainless steel protection

On request, corrosion high grade protection (stainless steel micro suspensions in a polyurethanic paint) is available.



Dimensional specifications (mm)

Type	Fig.	A	øB	C	D	E	F°	G	H	I	L	Cable entry thread
VB 15/2510-D	H	517.5	281	158.5	30	26	14	85.3	136.6	35	108	M32x1.5
VB 10/2510-D	H	517.5	281	158.5	30	26	14	85.3	136.6	35	108	M32x1.5
VB 15/5000-LM	H	555	342	208	48	48	25	106.5	110	60.5	70	M32x1.5