VB



The VB series is made up of vertical vibrators which feature a 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 dust particles. In particular, the VB series can be used in areas 21 and 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 Standards and Regulations
Low Voltage Directive 2006/95/EC; ATEX Directive 2014/34/UE; EN/IEC 60034-1, EN/IEC 60079-0, EN/IEC 60079-31, UL 1004-1, CSA C22.2 No.100, NEMA MG-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 kgf. (49 kN), with eccentric weights not included, to be made by the user.

Mechanical protection
IP 66 according to IEC/EN 60529.

Protection against mechanical impacts
IK 08 according to IEC/EN 62262.

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
Standard PTC rated thermistor heat detectors 130°C for VB 15/5000-LM, on request for smaller sizes. Also on request thermistors with different temperatures, bimetallic thermal protections and anti-condensation heaters.

Fixing of the vibrator
Typical vertical assembly with double tapered flange.

Lubrication
All vibrators are lubricated in the factory and do not require further lubrication at start-up.

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

4 poles - 1.500/1.800 rpm

Three-phase

DESCRIPTION				MECHANICAL SPECIFICATIONS							ELECTRICAL SPECIFICATIONS					
				rpm		Centrifugal force kg		Centrifugal force kN		Weight kg	Max input power W		Max current A		Ia/In	
Code	Type	CSA	II2D Temp. class	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz		50Hz	60Hz	400V 50Hz	460V 60Hz	50Hz	60Hz
601650	**VB 15/2200-D**	-	-	1500	1800	**2200**	**2200**	**21,6**	**21,6**	66,0	1540	1900	2,60	3,00	3,84	4,00
601223	**VB 15/2510-D**	•	150°C	1500	1800	**2500**	**2500**	**24,5**	**24,5**	68,0	2016	2600	3,60	4,10	3,50	3,58
601651	**VB 15/3000-D**	-	-	1500	1800	**3000**	**3000**	**29,5**	**29,5**	78,0	2800	3000	5,90	6,00	6,78	7,00
601378	**VB 15/5000-LM**	-	135°C	1500	1800	**5000**	**5000**	**49,0**	**49,0**	101	3600	3400	6,00	5,00	7,02	8,00

6 poles - 1.000/1.200 rpm

Three-phase

602171	**VB 10/2510-D**	•	150°C	-	1200	**-**	**2500**	**-**	**24,5**	68,0	-	2100	-	3,22	-	3,27
602056	**VB 10/5500-D**	-	-	-	1200	**-**	**5500**	**-**	**54,0**	110	-	4600	-	7,70	-	5,00

Category: II 2 D

Level of protection:

Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)

Temperature class:

see tables

Zones of use:

21, 22

Certifications

Compliance with the applicable European Union directives.

Standard CAN/CSA – C22.2, N°.100-95,
Certificate n° LR 100948
Class 4211 01 - Motors and generators
UL 1004-1 – Rotating Electrical Machines – General Requirements

II2D (2014/34/UE)
Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)
EN 60079-0
EN 60079-31

Ex tD A21 T...°C IP66 (Ex tb IIIC T...°C Db)
IEC 60079-0
IEC 60079-31

Version VB-C available on request
Class I Div.2, Groups ABCD
Standard CAN/CSA – C22.2

Certification for Eurasian Customs Union
N° TC N RU Д-IT.АЛ33.B.02527
N° TC RU C-IT.ГБ08.B.02190

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

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
The two flanges, made in spheroidal cast iron, are characterized by external tapered diameter for fixing in the vibrating machine.

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. On request both shaft ends may be modified to be adapted to the user weights.

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.

For further details please contact sales offices at Italvibras.
The technical data and models listed in this catalogue are not binding. Italvibras reserves the right to modify them without prior notice.

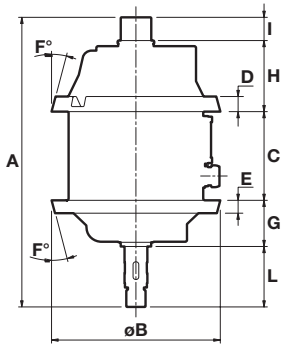


Fig. H

DIMENSIONAL SPECIFICATIONS (mm)

Type	Fig.	A	ØB	C	D	E	F°	G	H	I	L	Cable entry thread
VB 15/2200-D	**H**	517,5	281	158,5	**27**	**23**	**14**	82,5	127	41,5	108	M32x1,5
VB 15/2510-D	**H**	517,5	281	158,5	**27**	**23**	**14**	82,5	127	41,5	108	M32x1,5
VB 15/3000-D	**H**	523	282,5	152	**25**	**25**	**14**	113	129,5	38,0	90,5	M25x1,5
VB 15/5000-LM	**H**	555	342	208	**48**	**48**	**25**	110	119	48,0	70	M25x1,5
VB 10/2510-D	**H**	517,5	281	158,5	**27**	**23**	**14**	82,5	127	41,5	108	M32x1,5
VB 10/5500-D	**H**	607	282,5	216	**25**	**25**	**14**	119	143,5	38,0	90,5	M32x1,5

Ia/In = ratio between start-up current and maximum current.