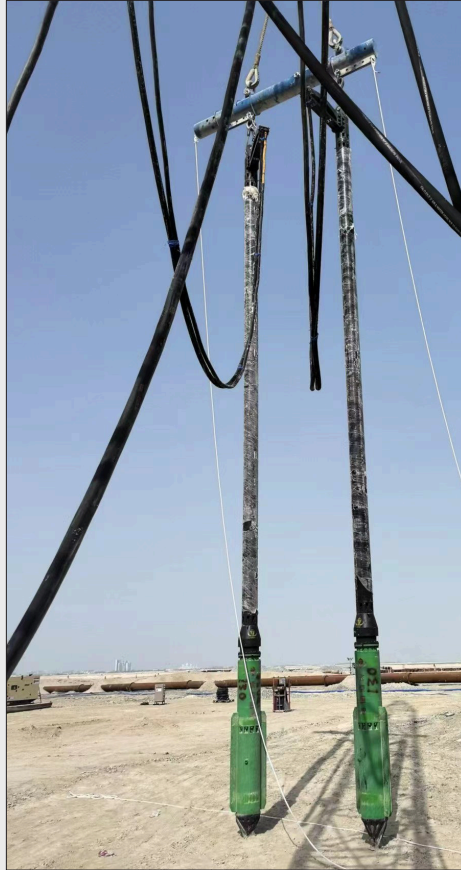


# TOP FEED VIBROFLOTS

## THE ELECTRICAL SERIES FROM BVEM



### APPLICATIONS

The vibroflotation technology is especially suitable to increase the density of granular soil on large foundation treatment projects like hydropower stations, petrochemical plants, port terminals, dams and airport runways; to improve the bearing capacity of the soil, prevent uneven settlement or to treat anti-liquefaction ability of the interlayer in some section of the foundation.

Vibroflots are mostly handled by crawler cranes (free hanging, in singles or in pairs) or can be mounted to piling or foundation rigs or to excavator boom sticks for smaller depths.

### MAIN COMPONENTS

- Lifting head with a hook for the crane line and different guide arms for electric cables and water hose.
- Extension tubes of various diameters and lengths to accommodate the required installation depth.
- Vibration damper safeguards the crane from extensive vibrations and consequent damages.
- Electric Motor drives the vibration body.
- Vibration body creates horizontal vibrations which densifies and settles the surrounding soil.
- Electric cabinet, standard or variable frequency control for selecting 50-60 Hz frequency conversion.
- Data recorders collect various parameters to optimise the working procedure and for quality control.
- Water pumps to assist penetration and increase compaction.



# TECHNICAL DATA OF BVEM TOP FEED ELECTRIC VIBROFLOTS

Model	Power	Rated Current	Rotation	Amplitude	Power	Weight	Outer ø	Length	Pile Distance
Unit	(kW)	(A)	(rpm)	(mm max.)	(kN)	(kg)	(mm)	(mm)	(~m)

## BJV-377 Series for vibro-compaction and vibro-replacement columns of diameter range 700-1200 mm

BJV-75E-377	75	148	1450	16	175	1920	377	3000	
BJV-100E-377	100	195	1450	18	195	1980	377	3105	
BJV-130E-377	130	255	1450	17	195	2050	377	3245	
BJV-180E-377	180	365	1450	16	195	2150	377	3335	

## BJV-426 Series for vibro-compaction and vibro-replacement columns of diameter range 800-1500 mm

BJV-75E-426	75	148	1450	15	175	2045	426	2785	1.5-2.0
BJV-100E-426	100	195	1450	17	195	2170	426	2895	
BJV-130E-426	130	255	1450	15	195	2250	426	2965	2.0-3.0
BJV-180E-426	180	365	1450	23	280	2320	426	3020	3.0-3.5

## BJV-450 Series

BJV260E-450	260	510	1450	26	440	2980	450	3310	4.0-4.5
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Technical data of other vibroflots (BJV55E-325, BJV75E-325, BJV55E-377 & BJV180E-402) are available on request.

### Vibro-compaction:

Mostly applied to sandy soil with clay content not exceeding 10%, such as coarse sand, medium coarse sand and gravelly medium coarse sand. In many cases the relative density can be increased to over 80% after vibro-compaction. No additional material is added.

### Vibro-replacement - top feed stone columns:

Recommended for cohesive soil, soft clay, silty soil, and other soil types. After improvement, the bearing capacity can be improved to 200 kPa-400 kPa. Simple application and perfect when strict pile diameters are not required.

### Vibro-replacement - bottom feed stone columns:

Applied when encountering muddy soil with undrained shear strength less than 20 kPa. We recommend the particle size of the filler should be 20-50mm, because the limited diameter of the feeder pipe. Mainly used if the poured gravel volume must be exactly controlled, on underwater projects and in areas where the use of water is limited.

### Result testing:

After treating the soil by vibroflotation, dynamic penetration testing is used to detect the compactness of the pile body. Static penetration testing and standard penetration testing methods are used to determine the bearing capacity of the soil between piles and evaluate the liquefaction resistance of the sand foundation.



### DATA RECORDER

- Remote control of vibroflots and accessories (high-pressure water pump).
- Real time display of working current, depth, voltage and filling amount during vibroflotation process.
- Comprehensive and accurate recording of important construction parameters.
- Assisting the site personnel and improve quality and work efficiency.
- Equipped with intelligent pile driving feedback to reduce construction errors.
- The generated parameter relationship diagram can vividly represent the construction process.
- Indirect reflection of soil layer conditions, providing strong basis for future design and constructions.



IMECO Handelsgesellschaft m.b.H.  
Arbesbachgasse 26/5 | 1190 Vienna | Austria  
Tel: +43.1.328 9980 | Email: imeco@imeco.at | Web: www.imeco.at