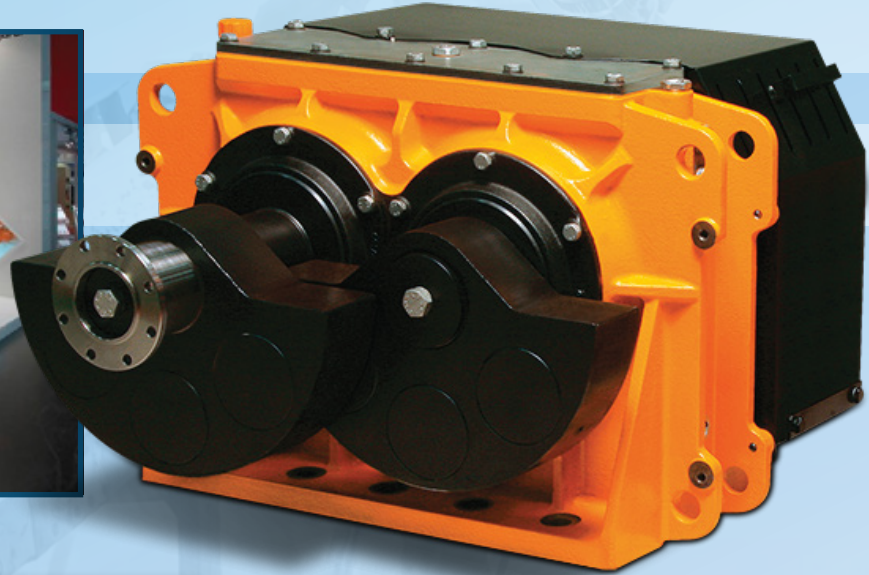


# **AIRMATIC®**

**WE'LL HANDLE IT.**



## **VU SERIES**

**Linear Mechanical Exciters**

### **AIRMATIC**

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## VU

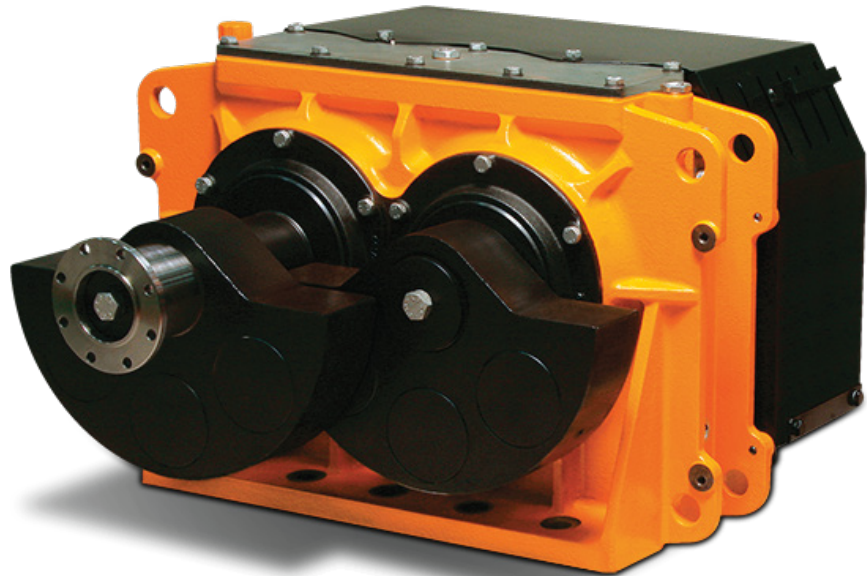
The VU series linear mechanical exciters manufactured by Italvibras have been designed for medium and large size vibrating machines operating in many industrial processes.

The state-of-the-art design and components selected offer reliable performance and low operating noise, resulting in a longer lifetime for bearings and gears.

Model VU exciters can be mounted in line (connected through cardan shafts), to achieve higher centrifugal forces.

AIRMATIC and Italvibras' competence and experience, in the vibration field by over 75 years, are the best guarantee for reliability and safety of the VU series exciters.

The VU linear motion exciters are completely designed, manufactured, and tested in Italy.



## TECHNICAL FEATURES

### Functioning

VU linear motion exciters are composed of a casing (central body) that, by means of 4 bearings supports two shafts, synchronized by two helicoidal ground gears. The eccentric weights are mounted at the end of both shafts, rotating synchronized in opposite sense, determining a resulting unidirectional centrifugal force perpendicular to the mounting surface of the exciter.

### Standards and Regulations

In the application field of the Machinery Directive 2006/42/EC, the VU linear motion exciters can be considered as "partly completed machinery".

### Static moment

From 273 to 10393 in-lbs. The static moment of eccentric weights can be adjusted by means of the additional weights.

### Centrifugal Force

Up to 161000 lbs (718 kN).

### Ambient temperature

From -40°F to +158°F (-40°C to +70°C).

### Exciter mounting position

VU exciters can be mounted in all positions, always with the shafts in horizontal position.

### Lubrication

Gears and bearings are oil splash / spray lubricated.

### Driving system

The movement is transmitted by an external driving system coupled with the driving shaft by means of a joint, generally a Cardan joint (recommended). The external driving system can be an electric motor, a hydraulic motor or other motor type, directly coupled or by belts and pulleys.

### Casing

In spheroidal cast iron.

### Bearings

Spherical roller bearings, highest quality, long rated lifetime in conditions of maximum load.

### Shafts

In treated steel alloy (Isothermic hardening) resistant to stress. Eccentric weights / additional weights Eccentric weights in steel, additional weights in steel and/or lead.

### Weight covers

All exciters are equipped with two weight covers for protection from rotating parts.

### Painting

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

### Other features

The VU Italvibras exciters are supplied with: Coupling flange according to DIN standard on the driving shaft (on request a second flange on the opposite side); additional weights, based on the requested weights setting; oil level dipstick, magnetic plugs and breather plug with valve; technical handbook for use and maintenance.

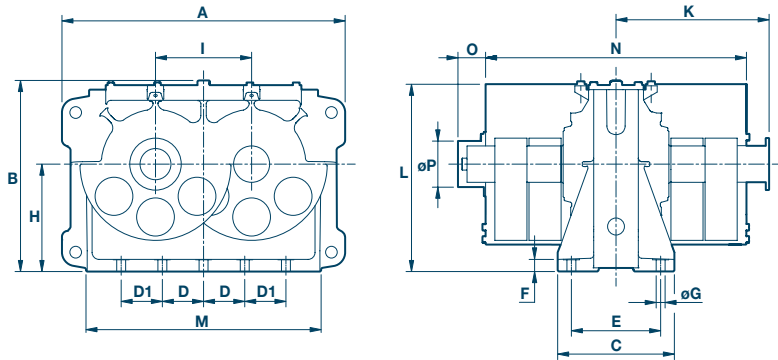
On request Airmatic can supply the complete driving system including joints, shaft extension and electric motor.

Other mounting bolt patterns are available. For further details please contact AIRMATIC.

The technical data and models listed in this catalogue are not binding. Italvibras reserves the right to modify them without prior notice.

## VU

DESCRIPTION					SPECIFICATIONS					
Code	Type	Type (EU)	Frame	Additional weights setting	Static moment	Max RPM	Centrifugal Force	Weight	Drive Motor Rating (HP)	
					in-lbs		lbs	lbs	1 VU	2 VU
0605033	<b>VU 12-5000</b>	VU 5000/6-S08	270	Min	273	1475	<b>16838</b>	529	4.0	10
				Max	473	1163	<b>18097</b>	584		
0605021	<b>VU 12-8000</b>	VU 8000/6-S08	280	Min	359	1534	<b>24055</b>	657	7.5	15
				Max	701	1098	<b>24055</b>	750		
0605020	<b>VU 12-10000</b>	VU 10000/6-S08	280	Min	373	1500	<b>23830</b>	664	7.5	15
				Max	843	1000	<b>23830</b>	787		
0605022	<b>VU 12-14000</b>	VU 14000/6-S08	295	Min	664	1460	<b>40241</b>	948	10	20
				Max	1213	1080	<b>40241</b>	1080		
0605032	<b>VU 12-16000</b>	VU 16000/6-S08	295	Min	692	1430	<b>40241</b>	955	15	25
				Max	1387	1000	<b>39342</b>	1122		
0605023	<b>VU 12-18000</b>	VU 18000/6-S08	297	Min	715	1600	<b>51931</b>	1241	15	25
				Max	1563	1138	<b>57551</b>	1431		
0605025	<b>VU 12-23000</b>	VU 23000/6-S08	297	Min	905	1500	<b>57776</b>	1391	20	40
				Max	1990	1000	<b>56652</b>	1634		
0605024	<b>VU 9-27000</b>	VU 27000/8-S08	297	Min	1049	1323	<b>51931</b>	1387	15	30
				Max	2316	890	<b>51931</b>	1671		
0605026	<b>VU 12-33000</b>	VU 33000/6-S08	310	Min	1535	1335	<b>77559</b>	1973	25	50
				Max	2833	1000	<b>80257</b>	2216		
0605028	<b>VU 12-38000</b>	VU 38000/6-S08	310	Min	1778	1262	<b>80257</b>	2092	25	50
				Max	3294	927	<b>80257</b>	2377		
0605027	<b>VU 9-42000</b>	VU 42000/8-S08	310	Min	1744	1200	<b>71265</b>	2092	25	50
				Max	3657	828	<b>71265</b>	2460		
0605034	<b>VU 9-60000</b>	VU 60000/8-S08	320	Min	3441	1000	<b>97568</b>	3199	40	75
				Max	5266	815	<b>99366</b>	3483		
0605029	<b>VU 9-74000</b>	VU 74000/8-S08	320	Min	3789	1000	<b>107459</b>	3351	40	100
				Max	6386	770	<b>107459</b>	3754		
0605041	<b>VU 9-103000</b>	VU 103000/8-S08	360	Min	5118	1000	<b>145227</b>	5000	60	125
				Max	8952	750	<b>142754</b>	5481		
0605042	<b>VU 9-120000</b>	VU 120000/8-S08	360	Min	5733	980	<b>156243</b>	5214	76	150
				Max	10393	740	<b>161414</b>	5798		



Dimensional specifications (inches)

Type	A	B	C	D	D1	E	ØG	N"	F	H	I	K	L	M	N	O	ØP
VU 12-5000	25.79	16.14	9.84	1x7.48	2x4.33	6.50	0.87	8x3/4"	0.98	8.86	8.27	12.62	16.04	21.46	20.87	2.74	3.82
VU 12-8000	27.56	17.85	10.24	1x7.48	2x4.33	6.50	0.87	8x3/4"	1.18	9.45	9.13	13.01	17.42	22.64	21.85	2.74	3.82
VU 12-10000	27.56	17.85	10.24	1x7.48	2x4.33	6.50	0.87	8x3/4"	1.18	9.45	9.13	13.05	17.42	22.64	21.85	2.74	3.82
VU 12-14000	29.92	20.02	10.63	1x8.66	2x4.33	7.48	1.02	8x1"	1.18	11.02	10.08	15.31	19.59	25.20	26.38	2.74	4.21
VU 12-16000	29.92	20.02	10.63	1x8.66	2x4.33	7.48	1.02	8x1"	1.18	11.02	10.08	15.31	19.59	25.20	26.38	2.74	4.21
VU 12-18000	32.48	21.71	13.39	4x4.72	-	10.24	1.02	10x1"	1.38	12.20	11.02	16.02	21.28	26.97	26.97	3.17	5.24
VU 12-23000	32.48	21.71	13.39	4x4.72	-	10.24	1.02	10x1"	1.38	12.20	11.02	17.56	21.28	26.97	29.92	3.17	5.24
VU 9-27000	32.48	21.71	13.39	4x4.72	-	10.24	1.02	10x1"	1.38	12.20	11.02	18.74	21.28	26.97	32.28	3.17	5.24
VU 12-33000	36.42	24.76	14.96	5x4.72	-	11.81	1.26	12x1 1/8"	1.38	13.78	12.60	18.76	24.33	30.31	32.09	3.27	5.63
VU 12-38000	36.42	24.76	14.96	5x4.72	-	11.81	1.26	12x1 1/8"	1.38	13.78	12.60	20.10	24.33	30.31	34.84	3.27	5.63
VU 9-42000	36.42	24.76	14.96	5x4.72	-	11.81	1.26	12x1 1/8"	1.38	13.78	12.60	20.65	24.33	30.31	36.02	3.27	5.63
VU 9-60000	42.13	27.87	18.50	4x4.72	2x5.91	15.35	1.26	14x1 1/8"	1.38	15.35	14.57	19.65	27.50	36.22	38.19	1.18	8.19
VU 9-74000	42.13	27.87	18.50	4x4.72	2x5.91	15.35	1.26	14x1 1/8"	1.38	15.35	14.57	23.31	27.50	36.22	41.14	3.35	6.34
VU 9-103000	50.39	32.68	19.69	1x11.02	4x6.30	16.14	1.54	12x1 3/8"	1.77	18.11	17.32	24.78	32.32	44.68	42.32	4.55	7.87
VU 9-120000	50.39	32.68	19.69	1x11.02	4x6.30	16.14	1.54	12x1 3/8"	1.77	18.11	17.32	26.04	32.32	44.68	44.88	4.55	7.87



## VIBRATORY REPAIR GENERAL INSPECTION/QUOTE PARAMETERS

The Vibratory Motor is completely disassembled to inspect the mechanical and electrical characteristics of the Motor. These inspections enable determination of what is required to repair the Vibrator to original Equipment Manufacturer (OEM) specifications. The Quote is then provided in three scenarios:

- Mechanical repair only
- Electrical repair only
- Both Mechanical and Electrical repair

## TWO TYPES OF REPAIRS PROVIDED

### MECHANICAL INSPECTION/REPAIR

Mechanically, the Motor is disassembled to enable visual and dimensional inspection of the Bearings and Bearing Brackets as well as a visual/dimensional inspection of all Housings. The Main Housing is inspected to ensure flatness of the mount feet, and to determine if there is damage to the casting which would require it to be refurbished or replaced. After removal of the Bearings from the Bearing Brackets, the Journals are dimensionally inspected to ensure the proper fit of the Bearings upon re-installation. The Bearings, whether re-used or replaced, are properly lubricated with the correct type and amount of the OEM recommended grease. All fasteners are scrapped and replaced using OEM specifications and rebuild procedures.

### ELECTRICAL INSPECTION/REPAIR

Electrically, the Stator is tested in accordance with OEM required Surge and High-pot Tests. If the Stator passes the Tests, it is deemed suitable for reuse (see WARNING). The Stator is then cleaned and re-varnished to extend life. If the Stator fails either the Surge or High-pot Test it is either rewound to OEM specifications or is replaced with an OEM replacement. If the Stator is replaced, the Terminal Block and Potting Materials are also replaced with OEM approved components and materials.

### WARNING

Motor repair Customers must be aware that even though a "used" Stator can pass the Surge and High-pot Tests and be reinstalled during repair, it is still possible for the Stator to fail quickly depending on the operational factors of the Motor's past and current usage. BE AWARE: Passing the Surge and High-pot Tests does not guarantee a long Stator life, it only means the stator passed the OEM specifications at the time of the Tests. It is highly recommended that large frame Motors, eg, 80 frame, have the Stator replaced to guarantee an extended functional life after repair/refurbishment of the Motor.

## ***Why Choose AIRMATIC for Vibrator Repair?***

For most companies, outsourcing tool repair is a simple matter of economics. Choosing AIRMATIC Vibratory Repair means you do not have to maintain a trained staff of mechanics. It also frees up cash flow and time otherwise tied up in parts inventory, repair facilities, specialized training, tooling, testing equipment and paperwork.

Vibrators kept in peak operating and safe condition have a direct effect on your bottom line. Production increases and downtime costs decrease. Morale and job satisfaction also improve because operators know their vibrators will work like new. Experience proves that when workers feel appreciated, they will also handle equipment more carefully.

**AIRMATIC Vibratory Repair** allows you to take advantage of specialized expertise and facilities dedicated solely to repairing or rebuilding vibrators. Our facilities include state-of-the-art equipment such as laborsaving cleaning and finishing equipment, automatic parts degreasers, pressure-blast cleaners, sophisticated testing instruments and gauges, and specially designed repair station fixtures. We repair tools more efficiently than if you did the work yourself and there is greater accountability.

As specialists in the field, AIRMATIC personnel are factory-trained and certified to repair industrial and construction power tools and many of the nation's largest vibrator manufactures appoint AIRMATIC as their authorized service center. Management continuously monitors vibrator repair procedures and finished product performance. AIRMATIC records all repair work on every vibrator for future reference. We always know, and can tell you, exactly what service we performed on any vibrator during its lifetime.

### **EXPERT ATTENTION FROM START TO FINISH**

AIRMATIC technicians inspect and test all repaired vibrators in accordance with American National Standard Institute (ANSI) guidelines. Testing equipment calibration is traceable to the National Bureau of Standards.

### **VIBRATOR REPAIR WARRANTY**

AIRMATIC'S warranty is a guarantee against defects in material or workmanship regardless of the date the unit leaves our shop.

All warranty claims are subject to our examination of the unit claimed to be defective and is contingent upon proper use in accordance with the manufacturer's recommendations and instructions. It does not apply to equipment subjected to misapplication, misuse, negligence, accident, or tampering in any way that affects its normal performance.



**AIRMATIC** founded in 1944, is a woman-owned Industrial Distributor, with installation and maintenance capabilities, offering equipment, machinery, and shop supplies to the Industrial, Construction, Utility, Government, and Commercial Markets. Our products and services are sold through three business units:

The **MATERIALS MANAGEMENT GROUP** provides products and services to industries that convey, store, transport, and process powders and bulk solids from aggregates, cement, and chemicals to foods, grains, metals, power generation, and waste water treatment applications;

The **SERVICE GROUP** provides fabrication, installation, and maintenance services to improve bulk materials handling efficiency; mechanical clean-out services for silos and hoppers to eliminate material flow problems; and shop repair/rebuilding and modifications services of products sold by the Company.

The **TOOL GROUP** provides power tools, personal protective equipment, materials-handling equipment, shop equipment and MRO supplies used for production, fabrication, assembly, metal removal, maintenance, and storage in manufacturing, construction, utility, and commercial applications.

**Our Customers tell us that by choosing AIRMATIC to solve their problems, they gain increased productivity, decreased costs, and a safer, cleaner work environment.**



**ITALVIBRAS** is an Italian company with more than 50 years of experience in electric vibrators. Designing and manufacturing its full range of products internally, and focusing relentlessly on quality, Italvibras has come to be recognized as a world leader in the industry. The company maintains facilities in France, Germany, Spain, and the United States. Its U.S. headquarters are in Princeton, Illinois.

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