

# **Technical features**

#### Functioning

Vu linear motion exciters are composed by 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.

#### **Confomity to European Directives**

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 4130 to 73440 kgmm. The static moment of eccentric weights can be adjusted by means of the additional weights.

# Centrifugal Force

Up to 453kN.

# Ambient temperature

From -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.

The VU series linear motion 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 best performance, low operating noise, resulting in a longer lifetime for bearings and gears.

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

#### **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, rated lifetime in excess of 40000 hours in conditions of maximum load.

#### Shafts

Eccentric weights / additional weights

Eccentric weights in steel, additional weights in steel and/or lead.

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

#### Weight covers

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

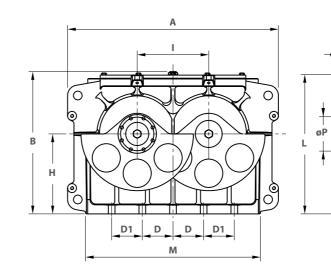
#### Painting

Electrostatic surface treatment based on polymerised epoxy polyester powder in oven at  $+200^{\circ}$ C. Tested in salt spray for 500 hours. Italvibras competence and experience, in the vibration field by over 50 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.

#### 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;
- ATEX certification in progress.



Description					Dimensional features (mm)																					
Code	Туре	Frame	Weights setting	Static moment kgmm	Max RPM	Centrifugal force kN	Weight kg	Motor rating kW	Туре	A	В	с	D	D1	E	ØG	N°	F	н	1	к	L	м	N	ο	ØP
0605021	VU 8000/6-S08	280	Min Max	4130 8065	1470 1100	98 107	298 340	5,5	VU 8000/6-S08	70	0 453,	5 260	1x455	-	156	32	4xM30	30	240	232	330	442,5	575	550	69	98
0605022	VU 14000/6-S08	295	Min Max	7660 13975	1385 1000	145 153	410 470	7,5	VU 14000/6-S08	76	0 508,	5 270	1x280	2x120	200	28	8xM27	30	280	256	388	497,5	640	665	69,5	118
0605023	VU 18000/6-S08	297	Min Max	8225 17980	1435 1000	186 197	563 649	11	VU 18000/6-S08	82	5 551,	5 340	4x120	-	260	26	10xM24	35	310	280	407	540,5	685	685	80,5	133
0605025	VU 23000/6-S08	297	Min Max	10410 22885	1410 1000	227 252	631 741	15	VU 23000/6-S08	82	5 551,	5 340	4x120	-	260	26	10xM24	35	310	280	446	540,5	685	760	80,5	133
0605024	VU 27000/8-S08	297	Min Max	12065 26635	1115 750	164 164	629 758	11	VU 27000/8-S08	82	5 551,	5 340	4x120	-	260	26	10xM24	35	310	280	476	540,5	685	820	80,5	133
0605026	VU 33000/6-S08	310	Min Max	17650 32583	1220 935	288 312	895 1005	18,5	VU 33000/6-S08	92	5 629	380	5x120	-	300	32	12xM30	35	350	320	476,5	618	770	815	83	143
0605028	VU 38000/6-S08	310	Min Max	20448 37881	1153 882	298 323	949 1078	18,5	VU 38000/6-S08	92	5 629	380	5x120	-	300	32	12xM30	35	350	320	510,5	618	770	885	83	143
0605027	VU 42000/8-S08	310	Min Max	20060 42060	1087 750	260 260	949 1116	18,5	VU 42000/8-S08	92	5 629	380	5x120	-	300	32	12xM30	35	350	320	524,5	618	770	915	83	143
0605029	VU 74000/8-S08	320	Min Max	43580 73440	940 750	423 453	1520 1703	30	VU 74000/8-S08	107	70 708	470	4x120	2x150	390	32	14xM30	35	390	370	592	698,5	920	1045	85	161



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

# Different mounting bolt patterns are available. Please contact sales office at Italvibras.

