



The VU series linear motion exciters manufactured by Italtvibras 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.

## 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.

### Conformity 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 3140 to 119525 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.

### 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

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 polymerised epoxy polyester powder in oven at +200°C. Tested in salt spray for 500 hours.

| Description |                 |       | Specifications  |                    |         |                      |           |                 |
|-------------|-----------------|-------|-----------------|--------------------|---------|----------------------|-----------|-----------------|
| Code        | Type            | Frame | Weights setting | Static moment kgmm | Max RPM | Centrifugal force kN | Weight kg | Motor rating kW |
| 0605033     | VU 5000/6-S08   | 270   | Min             | 3140               | 1348    | 63                   | 240       | 4               |
|             |                 |       | Max             | 5435               | 1062    | 67                   | 265       |                 |
| 0605021     | VU 8000/6-S08   | 280   | Min             | 4130               | 1470    | 98                   | 298       | 5.5             |
|             |                 |       | Max             | 8065               | 1100    | 107                  | 340       |                 |
| 0605020     | VU 10000/6-S08  | 280   | Min             | 4294               | 1443    | 98                   | 300       | 5.5             |
|             |                 |       | Max             | 9693               | 1000    | 107                  | 357       |                 |
| 0605022     | VU 14000/6-S08  | 295   | Min             | 7642               | 1316    | 145                  | 430       | 7.5             |
|             |                 |       | Max             | 13955              | 1000    | 153                  | 490       |                 |
| 0605032     | VU 16000/6-S08  | 295   | Min             | 7963               | 1293    | 146                  | 433       | 11              |
|             |                 |       | Max             | 15950              | 956     | 160                  | 509       |                 |
| 0605023     | VU 18000/6-S08  | 297   | Min             | 8225               | 1435    | 186                  | 563       | 11              |
|             |                 |       | Max             | 17980              | 1000    | 197                  | 649       |                 |
| 0605025     | VU 23000/6-S08  | 297   | Min             | 10410              | 1410    | 227                  | 631       | 15              |
|             |                 |       | Max             | 22885              | 1000    | 252                  | 741       |                 |
| 0605024     | VU 27000/8-S08  | 297   | Min             | 12065              | 1115    | 164                  | 629       | 11              |
|             |                 |       | Max             | 26635              | 750     | 164                  | 758       |                 |
| 0605026     | VU 33000/6-S08  | 310   | Min             | 17650              | 1220    | 288                  | 895       | 18.5            |
|             |                 |       | Max             | 32583              | 935     | 312                  | 1005      |                 |
| 0605028     | VU 38000/6-S08  | 310   | Min             | 20448              | 1153    | 298                  | 949       | 18.5            |
|             |                 |       | Max             | 37881              | 882     | 323                  | 1078      |                 |
| 0605027     | VU 42000/8-S08  | 310   | Min             | 20060              | 1087    | 260                  | 949       | 18.5            |
|             |                 |       | Max             | 42060              | 750     | 260                  | 1116      |                 |
| 0605029     | VU 74000/8-S08  | 320   | Min             | 43580              | 940     | 423                  | 1520      | 30              |
|             |                 |       | Max             | 73440              | 750     | 453                  | 1703      |                 |
| 0605041     | VU 103000/6-S08 | 360   | Min             | 58862              | 945     | 576                  | 2232      | 45              |
|             |                 |       | Max             | 102955             | 741     | 620                  | 2450      |                 |
| 0605042     | VU 120000/6-S08 | 360   | Min             | 65940              | 900     | 585                  | 2335      | 55              |
|             |                 |       | Max             | 119525             | 694     | 632                  | 2600      |                 |

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.

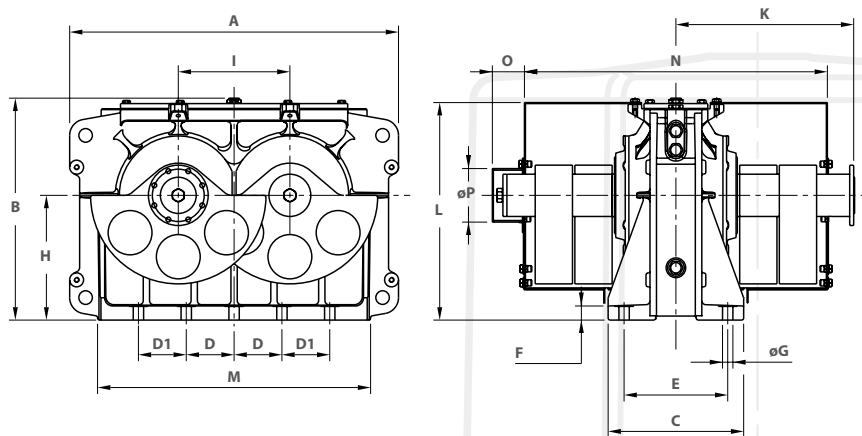


### Other features

- 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.

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.**



Dimensional features (mm)

| Type            | A    | B     | C   | D     | D1    | E   | ØG | N°     | F  | H   | I   | K     | L     | M    | N    | O     | ØP  |
|-----------------|------|-------|-----|-------|-------|-----|----|--------|----|-----|-----|-------|-------|------|------|-------|-----|
| VU 5000/6-S08   | 655  | 410   | 250 | 1x190 | 2x110 | 165 | 22 | 8xM20  | 25 | 225 | 210 | 320.5 | 407.5 | 545  | 530  | 69.5  | 97  |
| VU 8000/6-S08   | 700  | 453.5 | 260 | 1x190 | 2x110 | 165 | 22 | 8xM20  | 30 | 240 | 232 | 330.5 | 442.5 | 575  | 555  | 69.5  | 97  |
| VU 10000/6-S08  | 700  | 453.5 | 260 | 1x190 | 2x110 | 165 | 22 | 8xM20  | 30 | 240 | 232 | 331.5 | 442.5 | 575  | 555  | 69.5  | 97  |
| VU 14000/6-S08  | 760  | 508.5 | 270 | 1x220 | 2x110 | 190 | 26 | 8xM24  | 30 | 280 | 256 | 389   | 497.5 | 640  | 670  | 69.5  | 107 |
| VU 16000/6-S08  | 760  | 508.5 | 270 | 1x220 | 2x110 | 190 | 26 | 8xM24  | 30 | 280 | 256 | 389   | 497.5 | 640  | 670  | 69.5  | 107 |
| VU 18000/6-S08  | 825  | 551.5 | 340 | 4x120 | -     | 260 | 26 | 10xM24 | 35 | 310 | 280 | 407   | 540.5 | 685  | 685  | 80.5  | 133 |
| VU 23000/6-S08  | 825  | 551.5 | 340 | 4x120 | -     | 260 | 26 | 10xM24 | 35 | 310 | 280 | 446   | 540.5 | 685  | 760  | 80.5  | 133 |
| VU 27000/8-S08  | 825  | 551.5 | 340 | 4x120 | -     | 260 | 26 | 10xM24 | 35 | 310 | 280 | 476   | 540.5 | 685  | 820  | 80.5  | 133 |
| VU 33000/6-S08  | 925  | 629   | 380 | 5x120 | -     | 300 | 32 | 12xM30 | 35 | 350 | 320 | 476.5 | 618   | 770  | 815  | 83    | 143 |
| VU 38000/6-S08  | 925  | 629   | 380 | 5x120 | -     | 300 | 32 | 12xM30 | 35 | 350 | 320 | 510.5 | 618   | 770  | 885  | 83    | 143 |
| VU 42000/8-S08  | 925  | 629   | 380 | 5x120 | -     | 300 | 32 | 12xM30 | 35 | 350 | 320 | 524.5 | 618   | 770  | 915  | 83    | 143 |
| VU 74000/8-S08  | 1070 | 708   | 470 | 4x120 | 2x150 | 390 | 32 | 14xM30 | 35 | 390 | 370 | 592   | 698.5 | 920  | 1045 | 85    | 161 |
| VU 103000/6-S08 | 1280 | 830   | 500 | 1x280 | 4x160 | 410 | 39 | 12xM36 | 45 | 460 | 440 | 629.5 | 821   | 1135 | 1075 | 115.5 | 200 |
| VU 120000/6-S08 | 1280 | 830   | 500 | 1x280 | 4x160 | 410 | 39 | 12xM36 | 45 | 460 | 440 | 661.5 | 821   | 1135 | 1140 | 115.5 | 200 |