



**SVEN** COMMERCE

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Dal 1994 abbiamo sempre cercato di migliorare la nostra competenza in termini di prodotto, servizio e soluzioni tecniche, per assicurarci una clientela fidelizzata e soddisfatta. Continueremo su questa strada ...

*Since 1994 we have been growing our product, service and technical competence, in order to gain customers' fidelity and satisfaction. This will continue...*







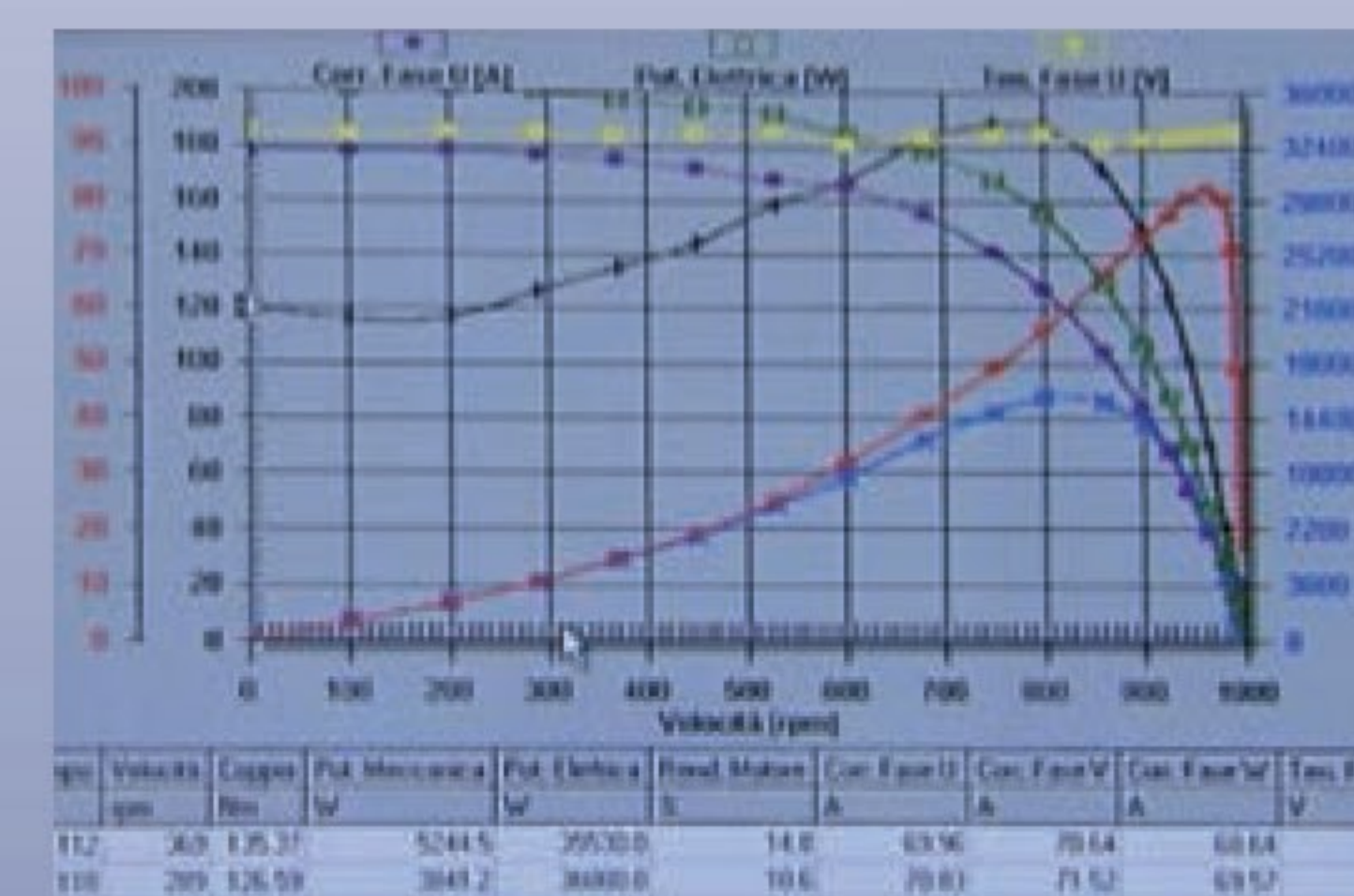
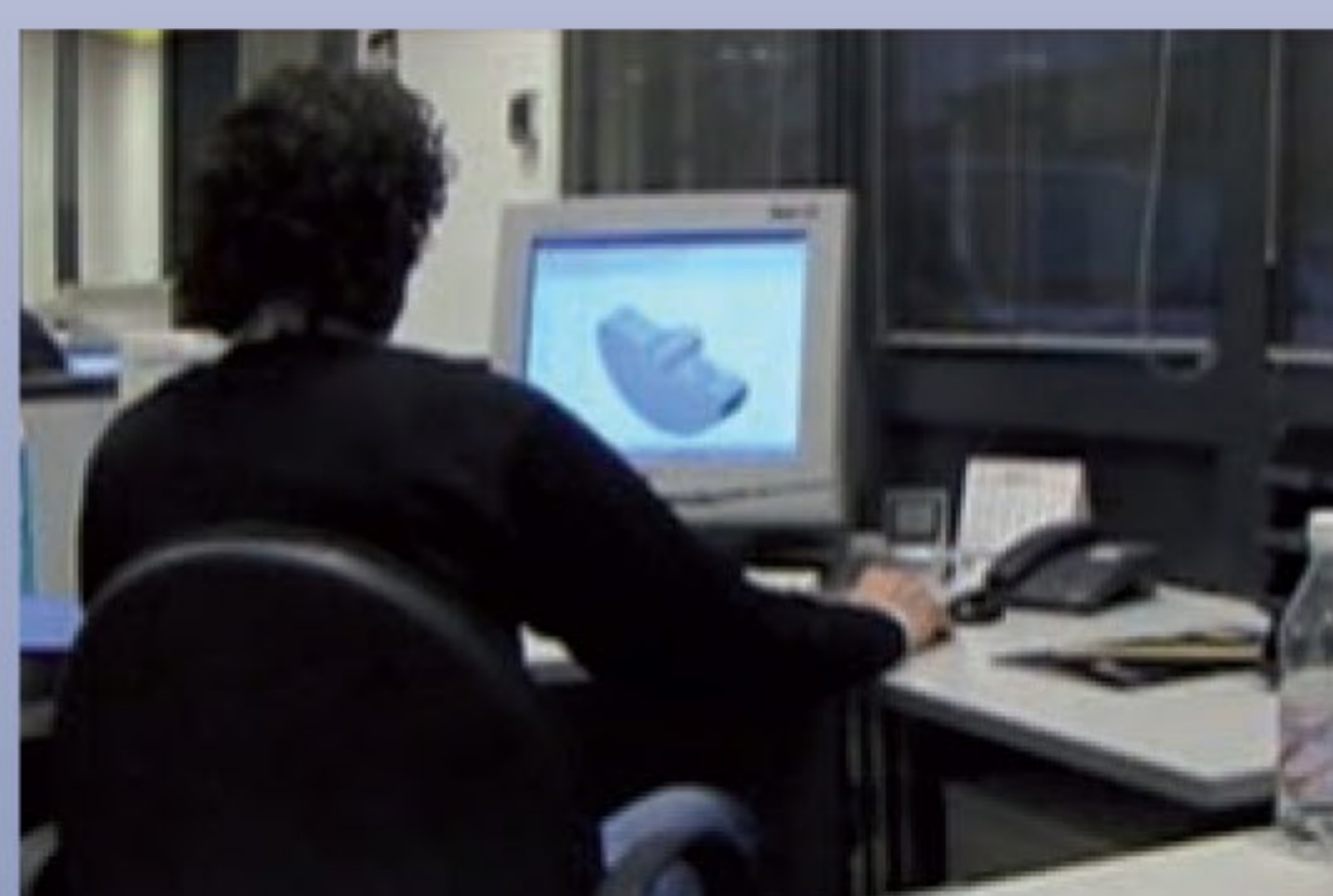
**L'AZIENDA  
THE COMPANY**

Dal 1994 VISAM si dedica alla progettazione, fabbricazione e commercializzazione di vibratori elettrici per applicazioni industriali. Fin dall'inizio il nostro obiettivo è stato proporre al mercato un prodotto adatto alle applicazioni più impegnative, che richiedono prestazioni elevate ed affidabilità. Per questo l'attenzione si è concentrata sulla qualità dei materiali e componenti utilizzati, su accuratezza e precisione dei processi di lavorazione e di finitura, nonché sui molteplici controlli, dalle materie prime fino al collaudo del prodotto finito. Grazie a tutto ciò VISAM è oggi riconosciuta tra i costruttori leader nel mercato dei vibratori elettrici, potendo vantare una presenza su tutti i maggiori mercati mondiali, grazie all'esportazione di oltre l'80% della sua produzione.

Since 1994, VISAM is dedicated to the design, manufacture and marketing of electric vibrators for industrial applications. Since the beginning our goal has been offering to the market a product suitable for the most demanding applications, that require high performance and reliability. Therefore, our attention focused on the quality of materials and components, on the accuracy and precision of processing and finishing, and on multiple controls, from raw materials to final testing of the product. Thanks to this, VISAM is today recognized among leader manufacturers of electric vibrators, with broad presence on all major world markets, thanks to exports exceeding 80% of its production.

UFFICIO TECNICO E  
LABORATORIO R&S

TECHNICAL DEPT AND R&D  
LABORATORY



LAVORAZIONI CON CENTRI DI  
LAVORO A CN E COLLAUDO  
TRIDIMENSIONALE

CNC MACHINING AND  
3-DIMENSIONAL CONTROL



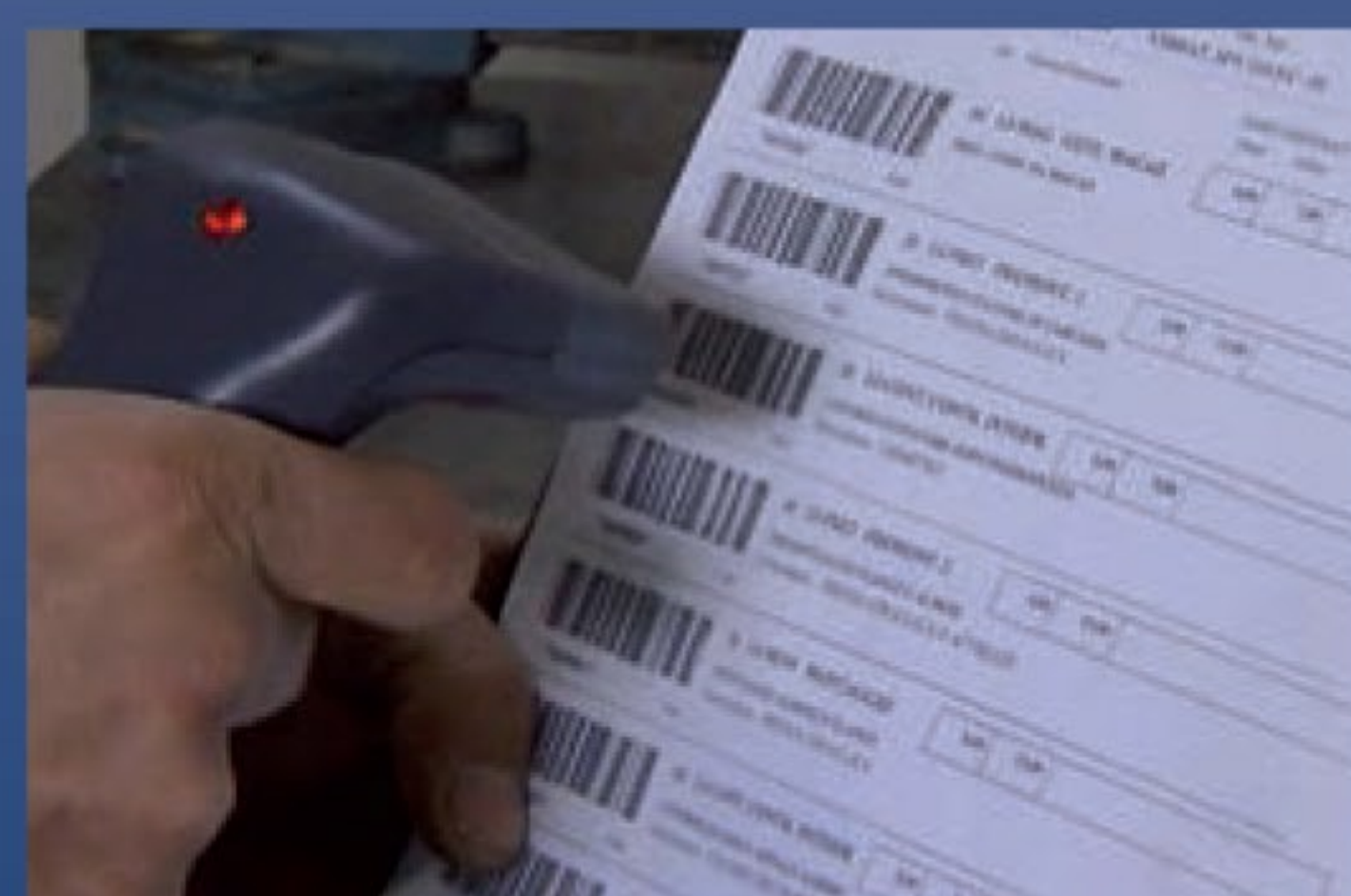
ASSEMBLAGGIO CON  
PERSONALE SPECIALIZZATO E  
COLLAUDO DINAMICO FINALE

ASSEMBLY BY SKILLED  
PERSONNEL AND FINAL  
DYNAMIC TEST

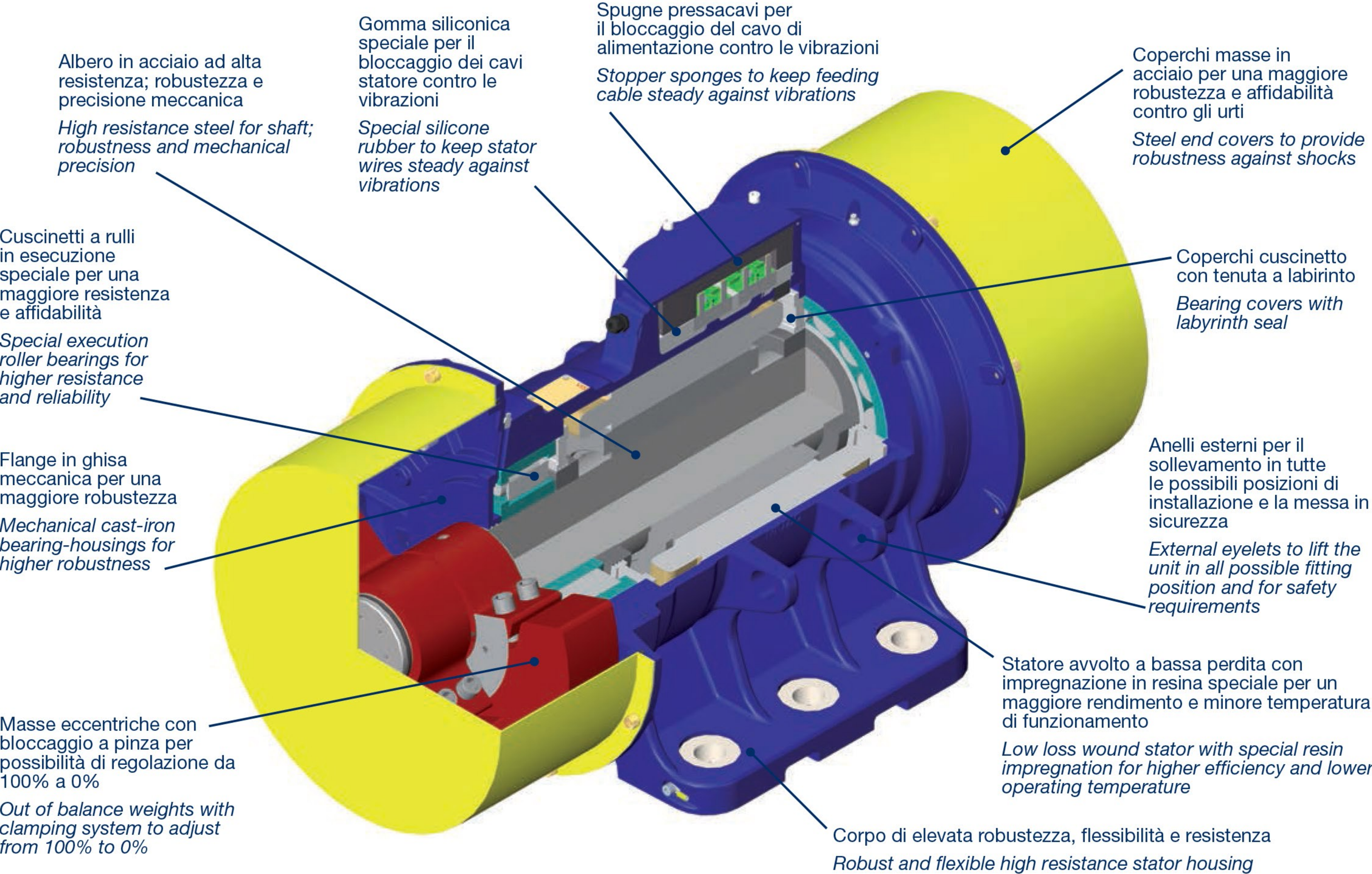


PRODUZIONE, MAGAZZINO E  
SPEDIZIONI CON GESTIONE A  
CODICE A BARRE

PRODUCTION, STOCKING AND  
SHIPPING HANDLED BY  
BAR-CODE SYSTEM







CARATTERISTICHE GENERALI

|                                 |                                                                                                                                                                  |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conformità:                     | Direttive Europee<br>2006/42/CE (Macchine)<br>2006/95/CE (Bassa Tensione)<br>2004/108/CE (Compatibilità Elettromagnetica)<br>94/9/CE (Atex)<br>2002/95/CE (Rohs) |
| CE                              |                                                                                                                                                                  |
| Atex:                           | Serie SPEX vedi pag. 14                                                                                                                                          |
| Gost:                           | Certificato per tutta la gamma                                                                                                                                   |
| AT75                            |                                                                                                                                                                  |
| Alimentazione:                  | Trifase da 42 a 700 V a 50 e 60 Hz<br>Monofase da 110 a 240 V a 50 e 60 Hz<br>Idonei per un funzionamento mediante “inverter” (VFD)                              |
| Esecuzioni:                     | 2, 4, 6, 8, 10, 12 poli e speciali                                                                                                                               |
| Forza Centrifuga:               | Da 50 a 25.000 Kg<br>Regolazione da 100% a 0% in modo continuo<br>(fornitura standard: regolazione all’ 80%)                                                     |
| Servizio:                       | Continuativo alla massima Forza Centrifuga (S1)                                                                                                                  |
| Protezione Meccanica:           | IP 66                                                                                                                                                            |
| Protezione d’impatto:           | IK 10                                                                                                                                                            |
| Classe Isolamento:              | F standard • H a richiesta                                                                                                                                       |
| Tropicalizzazione:              | Standard                                                                                                                                                         |
| Lubrificazione:                 | A Vita fino alla grandezza 4<br>Long Life dalla grandezza 4.1 a crescere                                                                                         |
| Temperatura Ambiente di Lavoro: | Da -20° a +40° C                                                                                                                                                 |
| Protezione Termica:             | Standard (termistore 130° C) dalla grandezza 10<br>A richiesta sino alla grandezza 9                                                                             |
| Posizione di Installazione:     | Tutte le posizioni                                                                                                                                               |
| Finitura:                       | Verniciatura a polvere blu RAL 5010 / giallo RAL 1003                                                                                                            |
| Collaudo:                       | Tutte le unità sono sottoposte ad un test dinamico di funzionamento (complete di masse)                                                                          |

GENERAL FEATURES

|                            |                                                                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Conformity:                | European Directives<br>2006/42/CE (Machine)<br>2006/95/CE (Low Voltage)<br>2004/108/CE (Electromagnetic Compatability)<br>94/9/CE (Atex)<br>2002/95/CE (Rohs) |
| CE                         |                                                                                                                                                               |
| Atex:                      | SPEX series see page 14                                                                                                                                       |
| Gost:                      | Certificate available for all range                                                                                                                           |
| AT75                       |                                                                                                                                                               |
| Feeding:                   | Three-phase from 42 up to 700 V at 50 and 60 Hz<br>Single-phase from 110 up to 240 V at 50 and 60 Hz<br>Perfect performance under inverter control (VFD)      |
| Executions:                | 2, 4, 6, 8, 10, 12 poles & specials                                                                                                                           |
| Centrifugal Force:         | From 50 up to 25.000 Kg<br>Continuous adjusting from 100% a 0%<br>(standard supply: setting at 80%)                                                           |
| Duty:                      | Heavy and continuous at maximum Centrifugal Force (S1)                                                                                                        |
| Mechanical Protection:     | IP 66                                                                                                                                                         |
| Impact Protection:         | IK 10                                                                                                                                                         |
| Insulation Class:          | F standard • H on request                                                                                                                                     |
| Tropicalization:           | Standard                                                                                                                                                      |
| Lubrication:               | For Life up to size 4<br>Long Life from size 4.1 upwards                                                                                                      |
| Ambient Temperature Range: | From -20° up to +40° C                                                                                                                                        |
| Thermal Protection:        | Standard (thermistor 130° C) from size 10<br>Up to size 9 on request                                                                                          |
| Mounting Configuration:    | Any position                                                                                                                                                  |
| Finish:                    | Powder coated blue RAL 5010 / yellow RAL 1003                                                                                                                 |
| Testing:                   | All units undergo a dynamic test-run (with unbalanced weights) before leaving the factory                                                                     |



TRIFASE • THREE-PHASE

Alimentazione Standard • Standard Supply

Δ 220-240 / Y 380-415 V (...AA)\*  
Δ 290-305 / Y 500-525 V (...AG)\*  
Altre a richiesta • Other feedings on request

Fig. 1 • Fig. 1

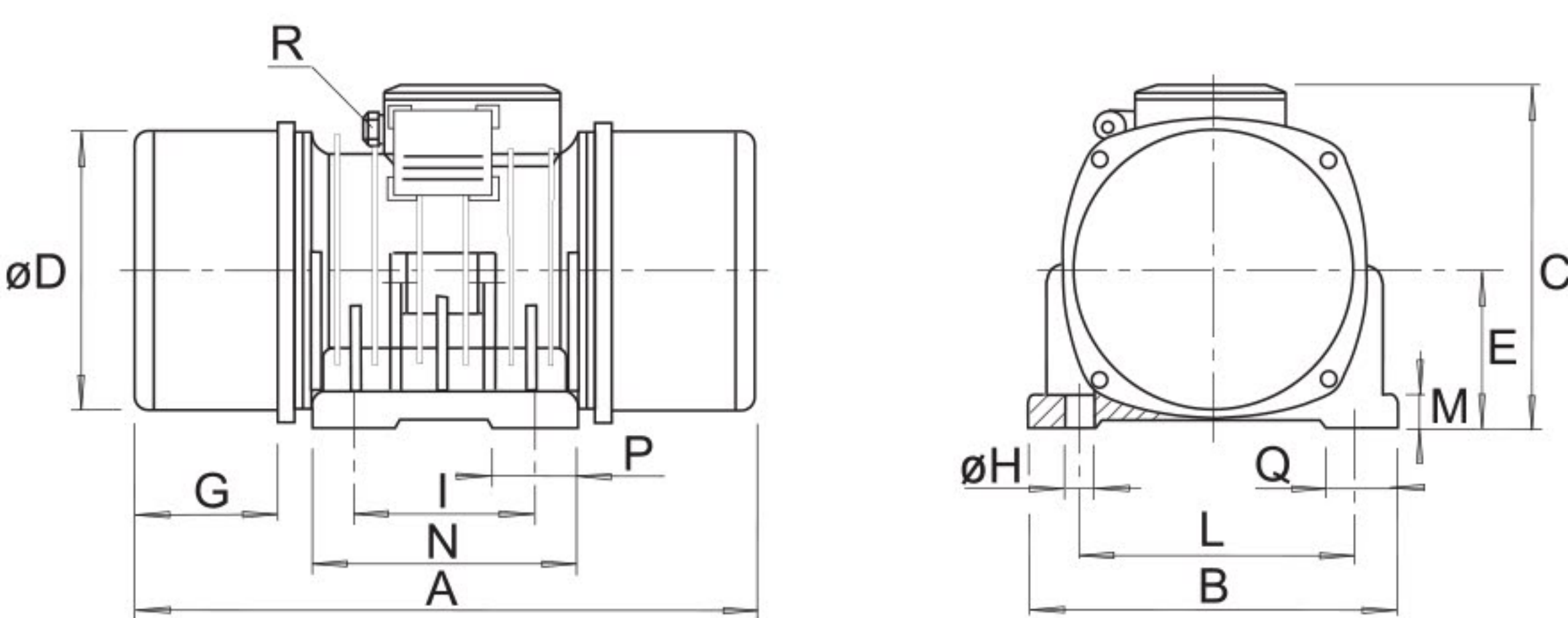
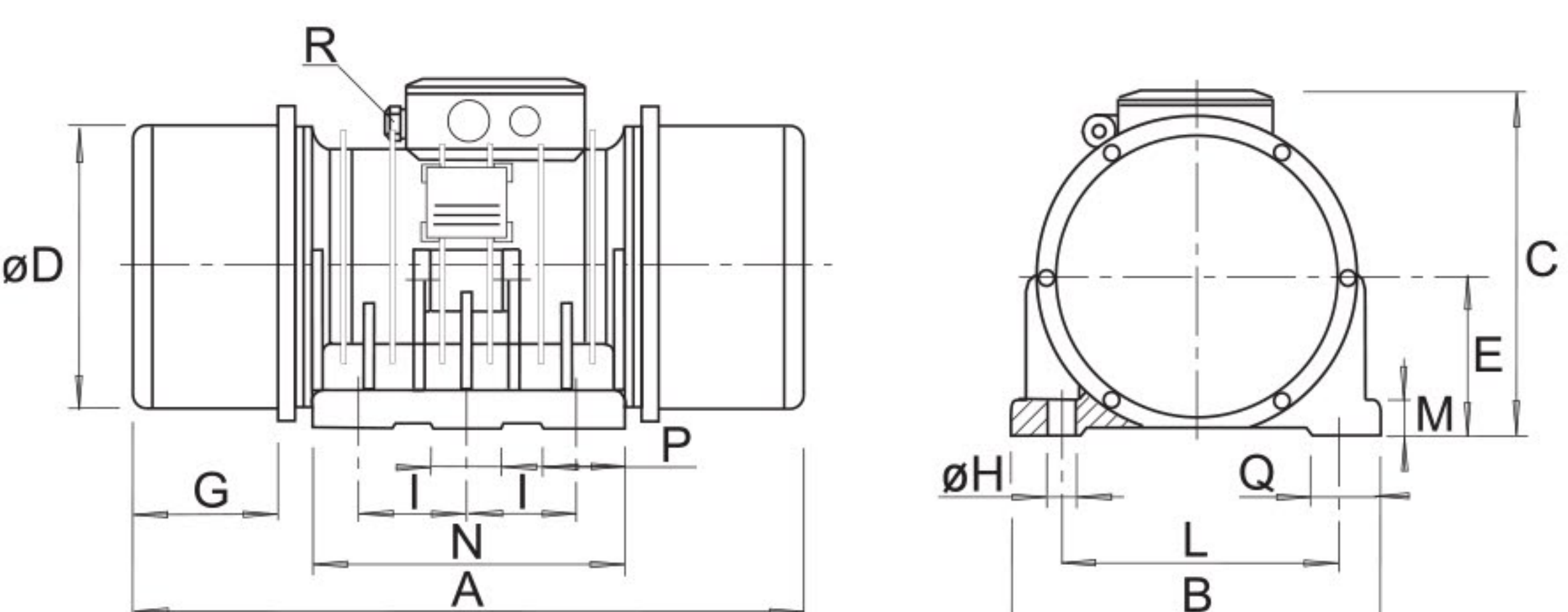


Fig. 2 • Fig. 2



| DATI GENERALI<br>GENERAL DATA |                |            | DATI MECCANICI<br>MECHANICAL DATA              |                                                   |                                  | DATI ELETTRICI<br>ELECTRICAL DATA |                               |       |                   | DATI DIMENSIONALI<br>OVERALL DIMENSIONS |      |     |     |     |     | DATI FISSAGGIO<br>FIXING DATA |      |    |       |        |    |     |     |     |                                      |
|-------------------------------|----------------|------------|------------------------------------------------|---------------------------------------------------|----------------------------------|-----------------------------------|-------------------------------|-------|-------------------|-----------------------------------------|------|-----|-----|-----|-----|-------------------------------|------|----|-------|--------|----|-----|-----|-----|--------------------------------------|
| Modello<br>Model              | Codice<br>Code | Gr.<br>Sz. | SM <sub>v</sub><br>Mom. Statico<br>Static Mom. | CF <sub>v</sub><br>Forza Centr.<br>Centrif. Force | W <sub>v</sub><br>Peso<br>Weight | Pot. Assorbita<br>Input Power     | Corrente Nom.<br>Nom. Current |       | Rapporto<br>Ratio | Fig./Fig.                               | A    | B   | C   | D   | E   | G                             | Nr.  | H  | I***  | L***   | M  | N   | P   | Q   | R<br>pressacavo<br>cable gland<br>** |
|                               |                |            | (kg*mm)                                        | (kg)                                              | (kg)                             | (kW)                              | Δ (A)                         | Y (A) | Is/In             |                                         | (mm) |     |     |     |     |                               | (mm) |    |       |        |    |     |     |     |                                      |
| SPV 0.7 A                     | SPV010A01B01AA | 01.0       | 7,5                                            | 75                                                | 4,2                              | 0,11                              | 0,4                           | 0,2   | 3,0               | 1                                       | 195  | 128 | 121 | 79  | 45  | 44                            | 4    | 9  | 62    | 95-106 | 9  | 100 | 40  | 32  | M16x1,5                              |
| SPV 1.2 A                     | SPV020A00B02AA | 02.0       | 13                                             | 130                                               | 4,8                              | 0,18                              | 0,6                           | 0,4   | 4,5               | 1                                       | 215  | 152 | 143 | 106 | 62  | 50                            | 4    | 9  | 62-74 | 106    | 12 | 100 | 35  | 40  | M16x1,5                              |
| SPV 1.8 A                     | SPV021A00B02AA | 02.1       | 22                                             | 220                                               | 5,2                              | 0,19                              | 0,7                           | 0,4   | 4,5               | 1                                       | 215  | 152 | 143 | 106 | 62  | 50                            | 4    | 9  | 62-74 | 106    | 12 | 100 | 35  | 40  | M16x1,5                              |
| SPV 2.7 A                     | SPV030A01B03AA | 03.0       | 33                                             | 330                                               | 9,0                              | 0,28                              | 1,0                           | 0,6   | 3,5               | 1                                       | 262  | 160 | 175 | 126 | 72  | 56                            | 4    | 13 | 90    | 125    | 15 | 145 | 55  | 50  | M16x1,5                              |
| SPV 4.5 A                     | SPV040A00B04AA | 04.0       | 50                                             | 500                                               | 15,5                             | 0,51                              | 1,7                           | 1,0   | 4,0               | 1                                       | 292  | 194 | 204 | 148 | 86  | 44                            | 4    | 13 | 100   | 155    | 18 | 180 | 50  | 45  | M20x1,5                              |
| SPV 7.0 A                     | SPV050A00B05AA | 05.0       | 80                                             | 800                                               | 20,5                             | 0,75                              | 2,3                           | 1,3   | 5,0               | 1                                       | 336  | 220 | 213 | 168 | 96  | 54                            | 4    | 17 | 115   | 170    | 20 | 200 | 65  | 50  | M20x1,5                              |
| SPV 9.0 A                     | SPV060A02B06AA | 06.0       | 100                                            | 1.000                                             | 27,0                             | 1,10                              | 3,2                           | 1,8   | 5,0               | 1                                       | 366  | 225 | 233 | 187 | 105 | 62                            | 4    | 17 | 120   | 180    | 20 | 210 | 70  | 50  | M20x1,5                              |
| SPV 12.0 A                    | SPV061A03B06AA | 06.1       | 130                                            | 1.350                                             | 28,0                             | 1,30                              | 3,7                           | 2,1   | 5,0               | 1                                       | 366  | 225 | 233 | 187 | 105 | 62                            | 4    | 17 | 120   | 180    | 20 | 210 | 70  | 50  | M20x1,5                              |
| SPV 15.0 A                    | SPV070A03B07AA | 07.0       | 165                                            | 1.660                                             | 33,5                             | 1,50                              | 4,5                           | 2,6   | 6,0               | 1                                       | 403  | 250 | 246 | 200 | 112 | 75                            | 4    | 17 | 150   | 190    | 22 | 220 | 60  | 60  | M20x1,5                              |
| SPX-50 19.0 A                 | SPX080A00B08AA | 08.0       | 200                                            | 2.000                                             | 46,0                             | 1,90                              | 5,0                           | 2,8   | 6,0               | 1                                       | 410  | 280 | 258 | 212 | 117 | 74                            | 4    | 17 | 160   | 200    | 30 | 260 | 95  | 80  | M20x1,5                              |
| SPX-50 25.0 A                 | SPX090A00B09AA | 09.0       | 270                                            | 2.700                                             | 61,0                             | 2,20                              | 6,2                           | 3,6   | 6,0               | 1                                       | 512  | 300 | 280 | 237 | 131 | 105                           | 4    | 22 | 165   | 230    | 35 | 300 | 115 | 80  | M20x1,5                              |
| SPX-50 32.0 A                 | SPX100A00B10AA | 10.0       | 415                                            | 4.200                                             | 100,5                            | 3,50                              | 10,0                          | 5,8   | 5,5               | 1                                       | 568  | 330 | 331 | 270 | 150 | 104                           | 4    | 25 | 165   | 270    | 35 | 360 | 150 | 90  | M25x1,5 + M16X1,5(TH)**              |
| SPX-50 50.0 A                 | SPX110A00B11AA | 11.0       | 560                                            | 5.630                                             | 130,0                            | 5,00                              | 14,0                          | 8,0   | 6,0               | 1                                       | 609  | 355 | 360 | 308 | 166 | 110                           | 4    | 29 | 210   | 295    | 35 | 390 | 165 | 100 | M25x1,5 + M16X1,5(TH)**              |
| SPV 60.0 A                    | SPV120A00B12AA | 12.0       | 660                                            | 6.640                                             | 182,5                            | 7,00                              | 20,0                          | 11,5  | 6,0               | 2                                       | 656  | 390 | 392 | 345 | 193 | 121                           | 6    | 29 | 110   | 310    | 41 | 350 | 110 | 90  | M25x1,5 + M16X1,5(TH)**              |
| SPV 70.0 A                    | SPV130A01B13AA | 13.0       | 750                                            | 7.600                                             | 210,0                            | 8,00                              | 22,5                          | 13,0  | 6,0               | 2                                       | 686  | 390 | 414 | 345 | 192 | 121                           | 6    | 29 | 115   | 320    | 45 | 370 | 115 | 75  | M25x1,5 + M16X1,5(TH)**              |
| SPV 85.0 A                    | SPV132A01B13AA | 13.2       | 950                                            | 9.550                                             | 216,0                            | 9,00                              | 25,0                          | 14,5  | 6,0               | 2                                       | 672  | 390 | 414 | 345 | 192 | 121                           | 6    | 29 | 115   | 320    | 45 | 370 | 115 | 75  | M25x1,5 + M16X1,5(TH)**              |

\* vedi codice in tabella • see code on table  
\*\* TH = pressa cavo per collegamento termistore • TH = cable gland for thermistor connection  
\*\*\*Ulteriori interassi di fissaggio sono producibili su richiesta. • Additional fixing holes are produced under request.



TRIFASE • THREE-PHASE

Alimentazione Standard • Standard Supply

Δ 220-240 / Y 380-415 V (...AA)\*  
Δ 290-305 / Y 500-525 V (...AG)\*  
Altre a richiesta • Other feedings on request

Fig. 1 • Fig. 1

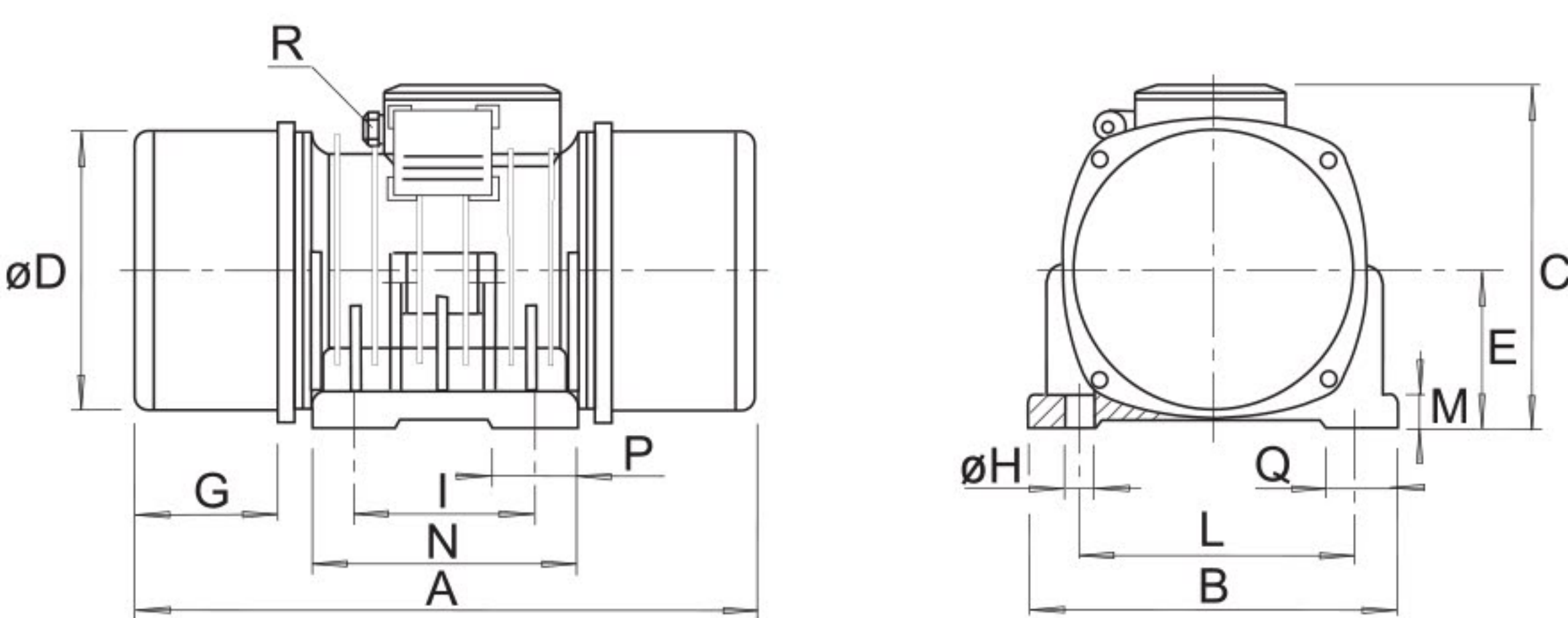
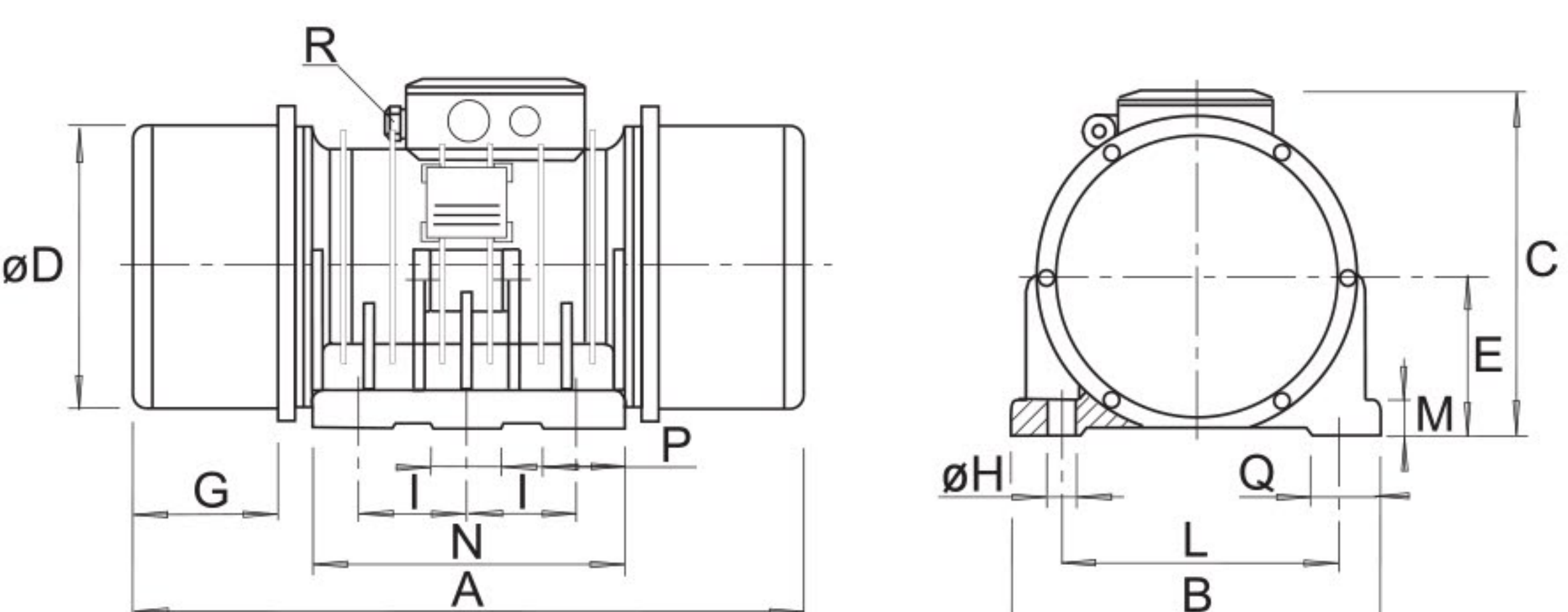


Fig. 2 • Fig. 2



| DATI GENERALI<br>GENERAL DATA |                |            | DATI MECCANICI<br>MECHANICAL DATA |                                |                | DATI ELETTRICI<br>ELECTRICAL DATA |                               |       |                   | DATI DIMENSIONALI<br>OVERALL DIMENSIONS |      |     |     |     |     | DATI FISSAGGIO<br>FIXING DATA |      |    |       |      |    |     |     |     |                       |
|-------------------------------|----------------|------------|-----------------------------------|--------------------------------|----------------|-----------------------------------|-------------------------------|-------|-------------------|-----------------------------------------|------|-----|-----|-----|-----|-------------------------------|------|----|-------|------|----|-----|-----|-----|-----------------------|
| Modello<br>Model              | Codice<br>Code | Gr.<br>Sz. | SMv                               | CFv                            | Wv             | Pot. Assorbita<br>Input Power     | Corrente Nom.<br>Nom. Current |       | Rapporto<br>Ratio | Fig./Fig.                               | A    | B   | C   | D   | E   | G                             | Nr.  | H  | I***  | L*** | M  | N   | P   | Q   | R                     |
|                               |                |            | Mom. Statico<br>Static Mom.       | Forza Centr.<br>Centrif. Force | Peso<br>Weight | (kW)                              | Δ (A)                         | Y (A) | Is/In             |                                         | (mm) |     |     |     |     |                               | (mm) |    |       |      |    |     |     |     |                       |
| SPV 0.5 B                     | SPV020B00B02AA | 02.0       | 22                                | 55                             | 5,5            | 0,09                              | 0,5                           | 0,3   | 4,5               | 1                                       | 215  | 152 | 143 | 106 | 62  | 50                            | 4    | 9  | 62-74 | 106  | 12 | 100 | 35  | 40  | M16x1,5               |
| SPV 0.8 B                     | SPV021B00B02AA | 02.1       | 35                                | 90                             | 5,8            | 0,10                              | 0,5                           | 0,3   | 4,5               | 1                                       | 235  | 152 | 143 | 106 | 62  | 60                            | 4    | 9  | 62-74 | 106  | 12 | 100 | 35  | 40  | M16x1,5               |
| SPV 2.2 B                     | SPV030B01B03AA | 03.0       | 105                               | 265                            | 12,5           | 0,20                              | 0,8                           | 0,5   | 3,0               | 1                                       | 332  | 160 | 175 | 126 | 72  | 91                            | 4    | 13 | 90    | 125  | 15 | 145 | 55  | 50  | M16x1,5               |
| SPV 3.8 B                     | SPV040B02B04AA | 04.0       | 180                               | 450                            | 20,5           | 0,40                              | 1,3                           | 0,7   | 3,0               | 1                                       | 370  | 194 | 204 | 148 | 86  | 83                            | 4    | 13 | 100   | 155  | 18 | 180 | 50  | 45  | M20x1,5               |
| SPV 5.1 B                     | SPV041B02B04AA | 04.1       | 240                               | 600                            | 23,5           | 0,45                              | 1,5                           | 0,9   | 3,0               | 1                                       | 406  | 194 | 204 | 148 | 86  | 101                           | 4    | 13 | 100   | 155  | 18 | 180 | 50  | 45  | M20x1,5               |
| SPV 6.7 B                     | SPV050B02B05AA | 05.0       | 300                               | 750                            | 27,0           | 0,55                              | 1,7                           | 1,0   | 4,0               | 1                                       | 390  | 220 | 213 | 168 | 96  | 81                            | 4    | 17 | 115   | 170  | 20 | 200 | 65  | 50  | M20x1,5               |
| SPV 10.0 B                    | SPV060B03B06AA | 06.0       | 455                               | 1.140                          | 36,0           | 0,95                              | 3,0                           | 1,8   | 5,0               | 1                                       | 428  | 225 | 233 | 187 | 105 | 93                            | 4    | 17 | 120   | 180  | 20 | 210 | 70  | 50  | M20x1,5               |
| SPV 15.0 B                    | SPV070B03B07AA | 07.0       | 680                               | 1.700                          | 46,0           | 1,10                              | 3,5                           | 2,0   | 4,0               | 1                                       | 461  | 250 | 246 | 200 | 112 | 104                           | 4    | 17 | 150   | 190  | 22 | 220 | 60  | 60  | M20x1,5               |
| SPX-50 20.0 B                 | SPX080B00B08AA | 08.0       | 825                               | 2.100                          | 56,0           | 1,30                              | 4,0                           | 2,3   | 3,5               | 1                                       | 486  | 280 | 258 | 212 | 117 | 112                           | 4    | 17 | 160   | 200  | 30 | 260 | 95  | 80  | M20x1,5               |
| SPX-50 25.5 B                 | SPX090B00B09AA | 09.0       | 1.100                             | 2.770                          | 70,0           | 1,75                              | 5,0                           | 3,0   | 5,0               | 1                                       | 512  | 300 | 280 | 237 | 131 | 105                           | 4    | 22 | 165   | 230  | 35 | 300 | 115 | 80  | M20x1,5               |
| SPX-50 30.0 B                 | SPX091B00B09AA | 09.1       | 1.250                             | 3.150                          | 80,0           | 2,00                              | 6,0                           | 3,8   | 5,0               | 1                                       | 584  | 300 | 280 | 237 | 131 | 141                           | 4    | 22 | 165   | 230  | 35 | 300 | 115 | 80  | M20x1,5               |
| SPX-50 35.0 B                 | SPX100B00B10AA | 10.0       | 1.580                             | 4.000                          | 118,0          | 2,40                              | 8,7                           | 5,0   | 5,5               | 1                                       | 568  | 330 | 331 | 270 | 150 | 104                           | 4    | 25 | 165   | 270  | 35 | 360 | 150 | 90  | M25x1,5 + M16X1,5(TH) |
| SPX-50 47.5 B                 | SPX110B00B11AA | 11.0       | 2.100                             | 5.300                          | 152,5          | 3,50                              | 10,5                          | 6,0   | 4,0               | 1                                       | 609  | 355 | 360 | 308 | 166 | 110                           | 4    | 29 | 210   | 295  | 35 | 390 | 165 | 100 | M25x1,5 + M16X1,5(TH) |
| SPV 55.0 B                    | SPV120B01B12AA | 12.0       | 2.300                             | 5.800                          | 201,5          | 4,50                              | 13,0                          | 7,5   | 4,0               | 2                                       | 656  | 390 | 392 | 345 | 193 | 121                           | 6    | 29 | 110   | 310  | 41 | 350 | 110 | 90  | M25x1,5 + M16X1,5(TH) |
| SPV 63.0 B                    | SPV130B01B13AA | 13.0       | 2.800                             | 7.050                          | 233,0          | 6,00                              | 19,0                          | 11,0  | 5,0               | 2                                       | 686  | 390 | 414 | 345 | 192 | 121                           | 6    | 29 | 115   | 320  | 45 | 370 | 115 | 75  | M25x1,5 + M16X1,5(TH) |
| SPV 77.0 B                    | SPV132B03B13AA | 13.2       | 3.380                             | 8.500                          | 248,0          | 7,10                              | 20,5                          | 12,0  | 4,5               | 2                                       | 672  | 390 | 414 | 345 | 192 | 121                           | 6    | 29 | 115   | 320  | 45 | 370 | 115 | 75  | M25x1,5 + M16X1,5(TH) |
| SPV-50 83.0 B                 | SPV140B02B14AA | 14.0       | 3.800                             | 9.500                          | 306,0          | 7,80                              | 21,5                          | 12,5  | 4,5               | 2                                       | 731  | 456 | 468 | 410 | 235 | 118                           | 6    | 32 | 130   | 380  | 40 | 400 | 390 | 120 | M32x1,5 + M16X1,5(TH) |
| SPV-50 105.0 B                | SPV141B03B14AA | 14.1       | 4.850                             | 12.200                         | 337,0          | 10,50                             | 30,5                          | 17,5  | 5,0               | 2                                       | 737  | 456 | 468 | 410 | 235 | 118                           | 6    | 32 | 130   | 380  | 40 | 400 | 390 | 120 | M32x1,5 + M16X1,5(TH) |

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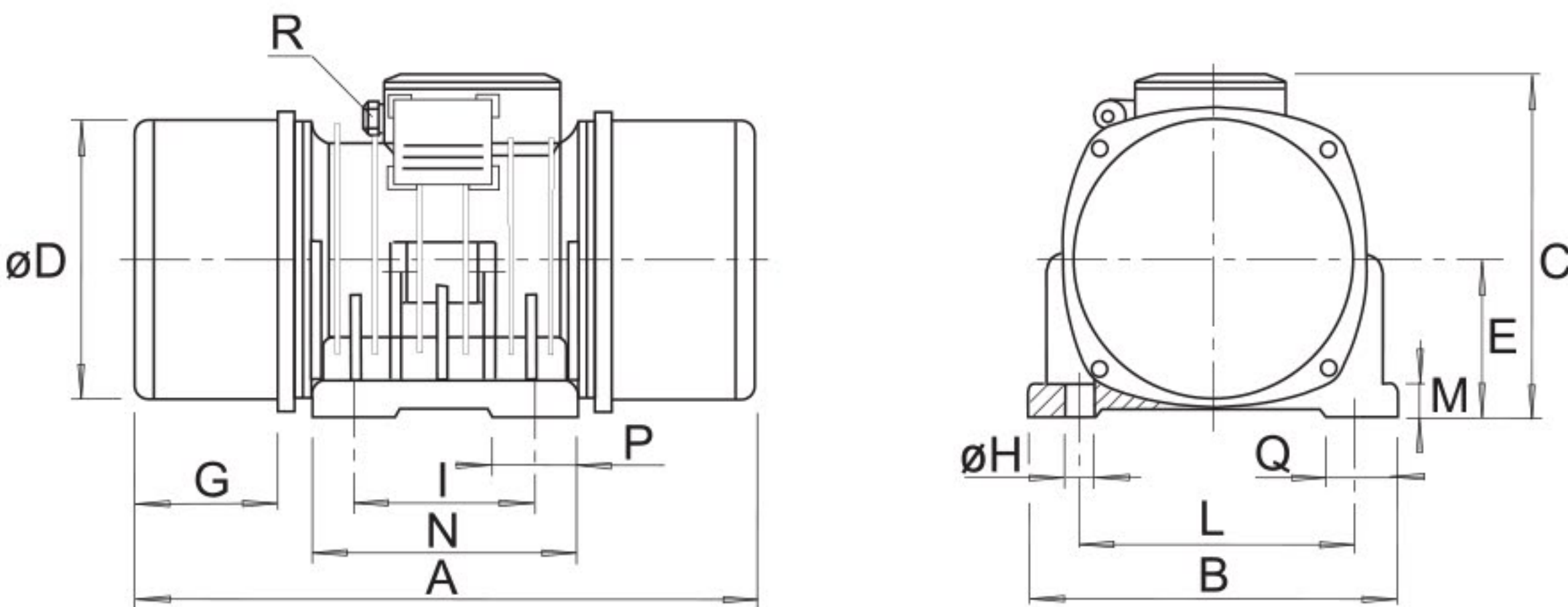


Fig. 2 • Fig. 2

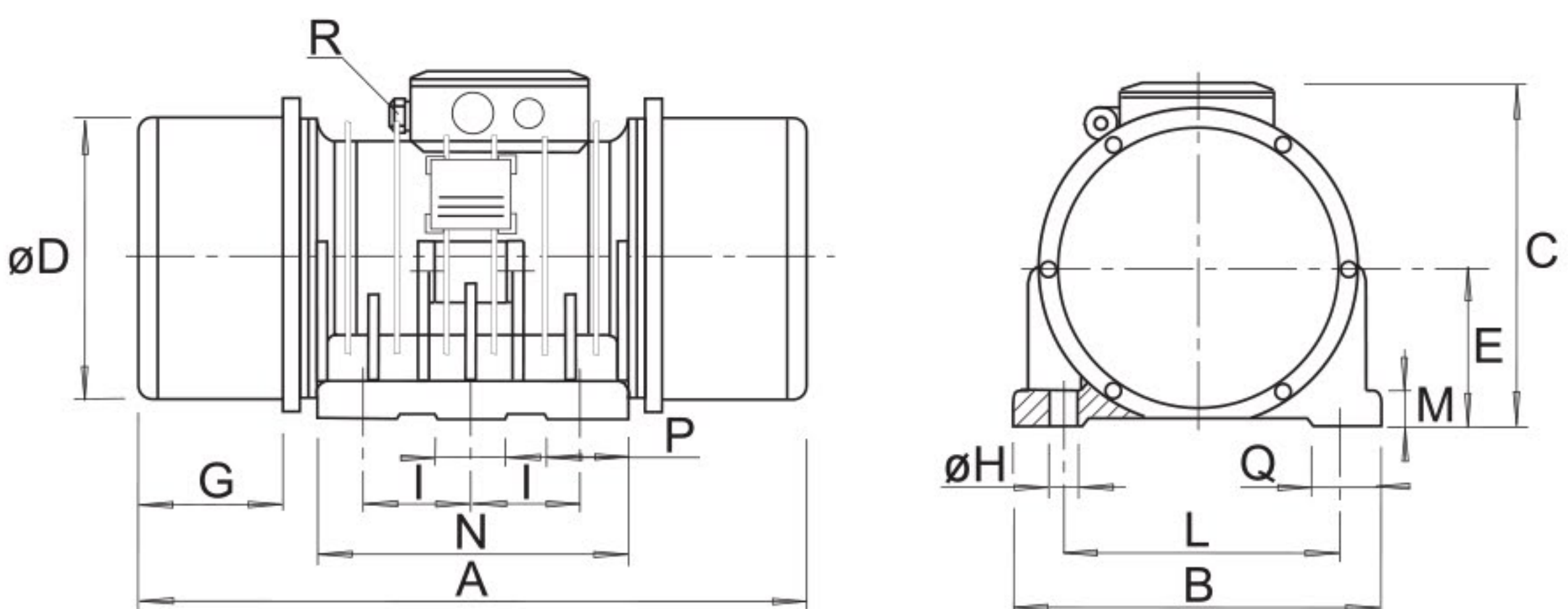
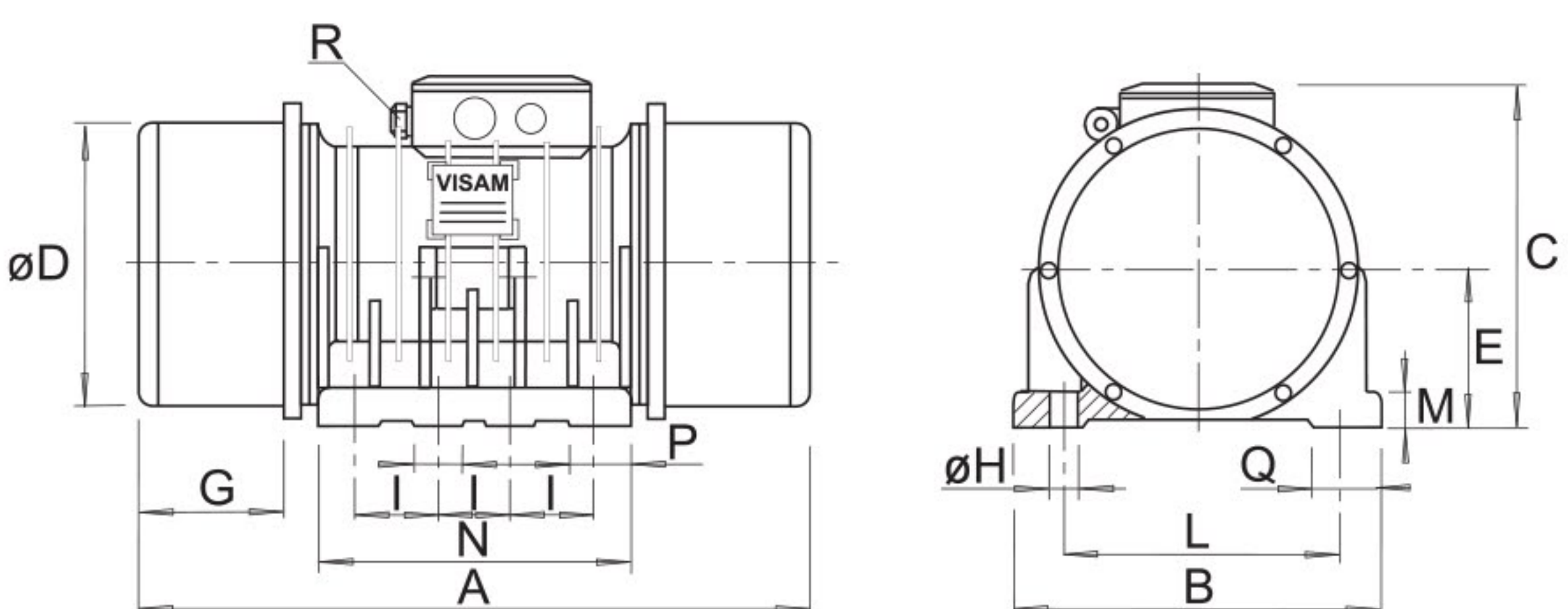


Fig. 3 • Fig. 3



| DATI GENERALI<br>GENERAL DATA |                |            | DATI MECCANICI<br>MECHANICAL DATA |                                |                | DATI ELETTRICI<br>ELECTRICAL DATA |                               |      |                   | DATI DIMENSIONALI<br>OVERALL DIMENSIONS |       |     |     |     |     | DATI FISSAGGIO<br>FIXING DATA |     |    |      |      |    |     |     |     |                                      |
|-------------------------------|----------------|------------|-----------------------------------|--------------------------------|----------------|-----------------------------------|-------------------------------|------|-------------------|-----------------------------------------|-------|-----|-----|-----|-----|-------------------------------|-----|----|------|------|----|-----|-----|-----|--------------------------------------|
| Modello<br>Model              | Codice<br>Code | Gr.<br>Sz. | SMV                               | CFV                            | WV             | Pot. Assorbita<br>Input Power     | Corrente Nom.<br>Nom. Current |      | Rapporto<br>Ratio | Fig./Fig.                               | A     | B   | C   | D   | E   | G                             | Nr. | H  | I*** | L*** | M  | N   | P   | Q   | R<br>pressacavo<br>cable gland<br>** |
|                               |                |            | Mom. Statico<br>Static Mom.       | Forza Centr.<br>Centrif. Force | Peso<br>Weight |                                   |                               |      |                   |                                         |       |     |     |     |     |                               |     |    |      |      |    |     |     |     |                                      |
|                               |                |            | (kg*mm)                           | (kg)                           | (kg)           |                                   |                               |      |                   |                                         |       |     |     |     |     |                               |     |    |      |      |    |     |     |     |                                      |
| SPV 1.1 C                     | SPV030C02B03AA | 03.0       | 105                               | 120                            | 12,5           | 0,24                              | 1,2                           | 0,7  | 3,5               | 1                                       | 332   | 160 | 175 | 126 | 72  | 91                            | 4   | 13 | 90   | 125  | 15 | 145 | 55  | 50  | M16x1,5                              |
| SPV 1.7 C                     | SPV040C02B04AA | 04.0       | 180                               | 200                            | 20,5           | 0,30                              | 1,3                           | 0,7  | 3,0               | 1                                       | 370   | 194 | 204 | 148 | 86  | 83                            | 4   | 13 | 100  | 155  | 18 | 180 | 50  | 45  | M20x1,5                              |
| SPV 2.2 C                     | SPV041C02B04AA | 04.1       | 240                               | 270                            | 23,0           | 0,35                              | 1,5                           | 0,9  | 3,0               | 1                                       | 406   | 194 | 204 | 148 | 86  | 101                           | 4   | 13 | 100  | 155  | 18 | 180 | 50  | 45  | M20x1,5                              |
| SPV 3.8 C                     | SPV050C02B05AA | 05.0       | 400                               | 450                            | 30,0           | 0,45                              | 2,3                           | 1,3  | 3,5               | 1                                       | 428   | 220 | 213 | 168 | 96  | 100                           | 4   | 17 | 115  | 170  | 20 | 200 | 65  | 50  | M20x1,5                              |
| SPV 5.0 C                     | SPV060C04B06AA | 06.0       | 520                               | 580                            | 37,0           | 0,80                              | 3,0                           | 1,7  | 4,0               | 1                                       | 452   | 225 | 233 | 187 | 105 | 105                           | 4   | 17 | 120  | 180  | 20 | 210 | 70  | 50  | M20x1,5                              |
| SPV 8.0 C                     | SPV070C03B07AA | 07.0       | 860                               | 960                            | 50,0           | 0,90                              | 3,2                           | 1,9  | 3,5               | 1                                       | 495   | 250 | 246 | 200 | 112 | 121                           | 4   | 17 | 150  | 190  | 22 | 220 | 60  | 60  | M20x1,5                              |
| SPX-50 12.0 C                 | SPX080C00B08AA | 08.0       | 1.110                             | 1.250                          | 62,5           | 1,00                              | 3,6                           | 2,1  | 3,5               | 1                                       | 548   | 280 | 258 | 212 | 117 | 143                           | 4   | 17 | 160  | 200  | 30 | 260 | 95  | 80  | M20x1,5                              |
| SPX-50 17.0 C                 | SPX090C01B09AA | 09.0       | 1.650                             | 1.850                          | 82,0           | 1,40                              | 4,6                           | 2,7  | 4,0               | 1                                       | 584   | 300 | 280 | 237 | 131 | 141                           | 4   | 22 | 165  | 230  | 35 | 300 | 115 | 80  | M20x1,5                              |
| SPX-50 22.0 C                 | SPX091C00B09AA | 09.1       | 2.100                             | 2.350                          | 100,0          | 1,60                              | 5,3                           | 3,0  | 4,0               | 1                                       | 624   | 300 | 280 | 237 | 131 | 181                           | 4   | 22 | 165  | 230  | 35 | 300 | 115 | 80  | M20x1,5                              |
| SPX-50 27.0 C                 | SPX100C00B10AA | 10.0       | 2.560                             | 2.860                          | 140,0          | 2,40                              | 9,0                           | 5,2  | 5,0               | 1                                       | 662   | 330 | 331 | 270 | 150 | 151                           | 4   | 25 | 165  | 270  | 35 | 360 | 150 | 90  | M25x1,5 +<br>M16X1,5(TH)             |
| SPX-50 35.5 C                 | SPX110C01B11AA | 11.0       | 3.560                             | 4.000                          | 173,5          | 2,70                              | 10,5                          | 6,0  | 5,0               | 1                                       | 693   | 355 | 360 | 308 | 166 | 152                           | 4   | 29 | 210  | 295  | 35 | 390 | 165 | 100 | M25x1,5 +<br>M16X1,5(TH)             |
| SPX-50 41.5 C                 | SPX111C00B11AA | 11.1       | 4.300                             | 4.800                          | 187,0          | 3,30                              | 12,0                          | 7,0  | 5,0               | 1                                       | 693   | 355 | 360 | 308 | 166 | 152                           | 4   | 29 | 210  | 295  | 35 | 390 | 165 | 100 | M25x1,5 +<br>M16X1,5(TH)             |
| SPV 50.0 C                    | SPV120C01B12AA | 12.0       | 5.100                             | 5.700                          | 241,5          | 4,20                              | 13,0                          | 7,5  | 5,0               | 2                                       | 740   | 390 | 392 | 345 | 193 | 163                           | 6   | 29 | 110  | 310  | 41 | 350 | 110 | 90  | M25x1,5 +<br>M16X1,5(TH)             |
| SPV 61.0 C                    | SPV130C01B13AA | 13.0       | 6.050                             | 6.800                          | 280,0          | 5,30                              | 16,5                          | 9,5  | 5,0               | 2                                       | 770   | 390 | 414 | 345 | 192 | 163                           | 6   | 29 | 115  | 320  | 45 | 370 | 115 | 75  | M25x1,5 +<br>M16X1,5(TH)             |
| SPV 69.0 C                    | SPV131C00B13AA | 13.1       | 7.000                             | 7.800                          | 295,0          | 5,90                              | 19,0                          | 11,0 | 5,0               | 2                                       | 851   | 390 | 414 | 345 | 192 | 203                           | 6   | 29 | 115  | 320  | 45 | 370 | 115 | 75  | M25x1,5 +<br>M16X1,5(TH)             |
| SPV 80.0 C                    | SPV132C04B13AA | 13.2       | 7.900                             | 8.800                          | 308,0          | 7,00                              | 21,0                          | 12,0 | 5,5               | 2                                       | 838   | 390 | 414 | 345 | 192 | 203                           | 6   | 29 | 115  | 320  | 45 | 370 | 115 | 75  | M25x1,5 +<br>M16X1,5(TH)             |
| SPV 89.0 C                    | SPV133C00B13AA | 13.3       | 8.600                             | 9.610                          | 330,0          | 7,60                              | 22,5                          | 13,0 | 5,5               | 2                                       | 917   | 390 | 414 | 345 | 192 | 243                           | 6   | 29 | 115  | 320  | 45 | 370 | 115 | 75  | M25x1,5 +<br>M16X1,5(TH)             |
| SPV-50 90.5 C                 | SPV140C03B14AA | 14.0       | 9.100                             | 10.200                         | 372,0          | 8,00                              | 26,0                          | 15,0 | 5,0               | 2                                       | 901   | 456 | 468 | 410 | 235 | 203                           | 6   | 32 | 130  | 380  | 40 | 400 | 390 | 120 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV-50 114.0 C                | SPV141C04B14AA | 14.1       | 11.350                            | 12.700                         | 412,0          | 9,80                              | 28,0                          | 16,0 | 5,5               | 2                                       | 907   | 456 | 468 | 410 | 235 | 203                           | 6   | 32 | 130  | 380  | 40 | 400 | 390 | 120 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV-50 122.0 C                | SPV142C04B14AA | 14.2       | 12.150                            | 13.600                         | 428,0          | 10,20                             | 30,0                          | 17,0 | 5,5               | 2                                       | 907   | 456 | 468 | 410 | 235 | 203                           | 6   | 32 | 130  | 380  | 40 | 400 | 390 | 120 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV-50 140.0 C                | SPV150C04B15AZ | 15.0       | 14.000                            | 15.650                         | 543,0          | 11,50                             | 21,0                          | 12,0 | 5,5               | 2                                       | 964   | 520 | 504 | 451 | 255 | 218                           | 6   | 38 | 155  | 400  | 40 | 470 | 150 | 145 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV-50 160.0 C                | SPV151C07B15AZ | 15.1       | 15.700                            | 17.550                         | 610,0          | 13,80                             | 24,0                          | 13,8 | 6,0               | 2                                       | 1.018 | 520 | 504 | 451 | 255 | 218                           | 6   | 38 | 155  | 400  | 40 | 470 | 150 | 145 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV 220.0 C                   | SPV171C00B17AZ | 17.1       | 20.400                            | 22.800                         | 890,0          | 19,00                             | 31,0                          | 18,0 | 6,0               | 3                                       | 1.130 | 620 | 595 | 550 | 310 | 235                           | 8   | 45 | 140  | 520  | 50 | 530 | 100 | 120 | M40x1,5 +<br>M20X1,5(TH)             |

\* vedi codice in tabella • see code on table  
\*\* TH = pressa cavo per collegamento termistore • TH = cable gland for thermistor connection  
\*\*\*Ulteriori interessi di fissaggio sono producibili su richiesta. • Additional fixing holes are produced under request.



TRIFASE • THREE-PHASE

Alimentazione Standard • Standard Supply

Δ 220-240 / Y 380-415 V (...AA)\*  
Δ 380-405 / Y 660-700 V (...AZ)\*  
Δ 290-305 / Y 500-525 V (...AG)\*  
Altre a richiesta • Other feedings on request

Fig. 1 • Fig. 1

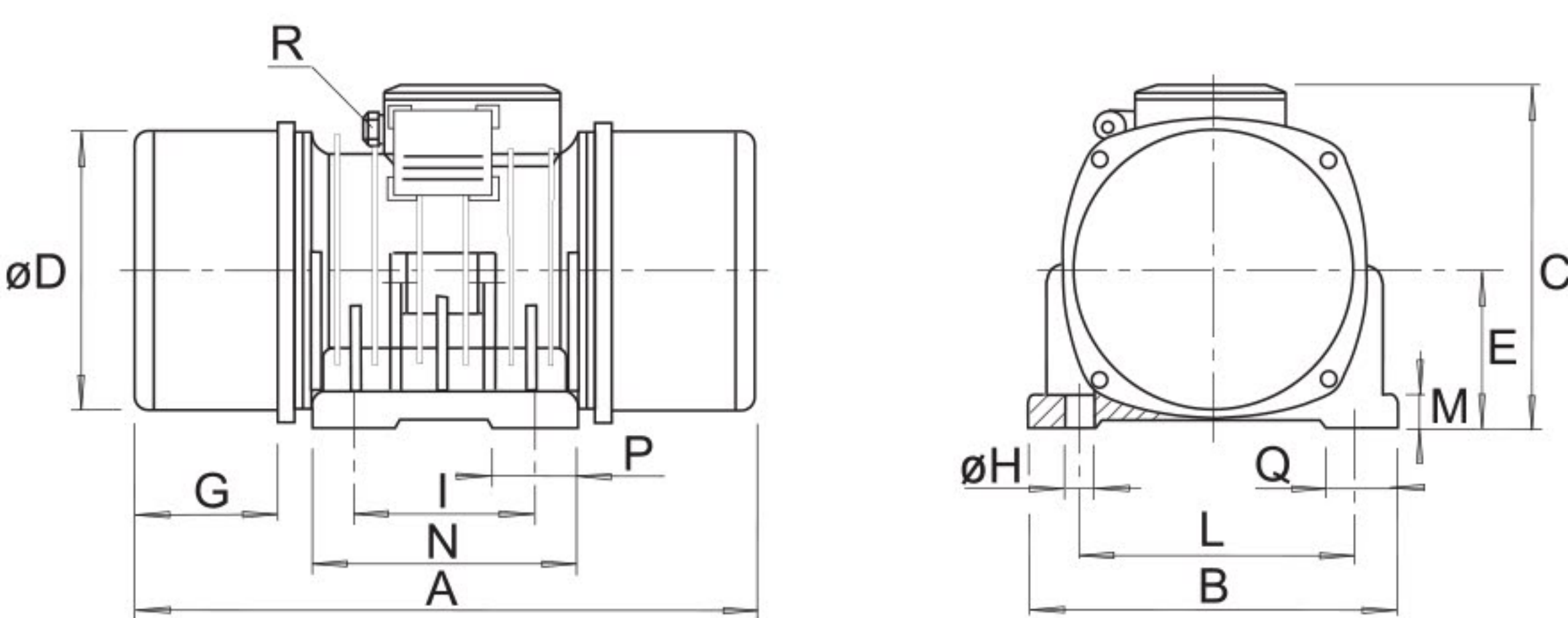


Fig. 2 • Fig. 2

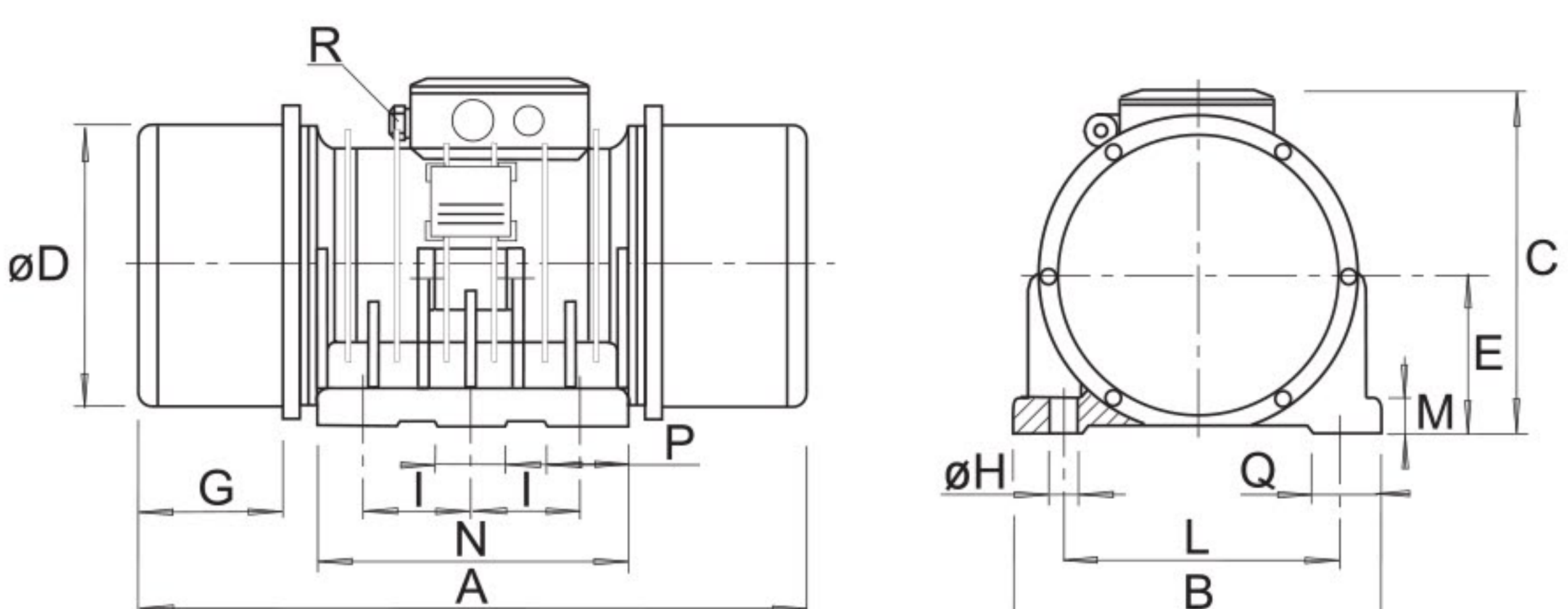
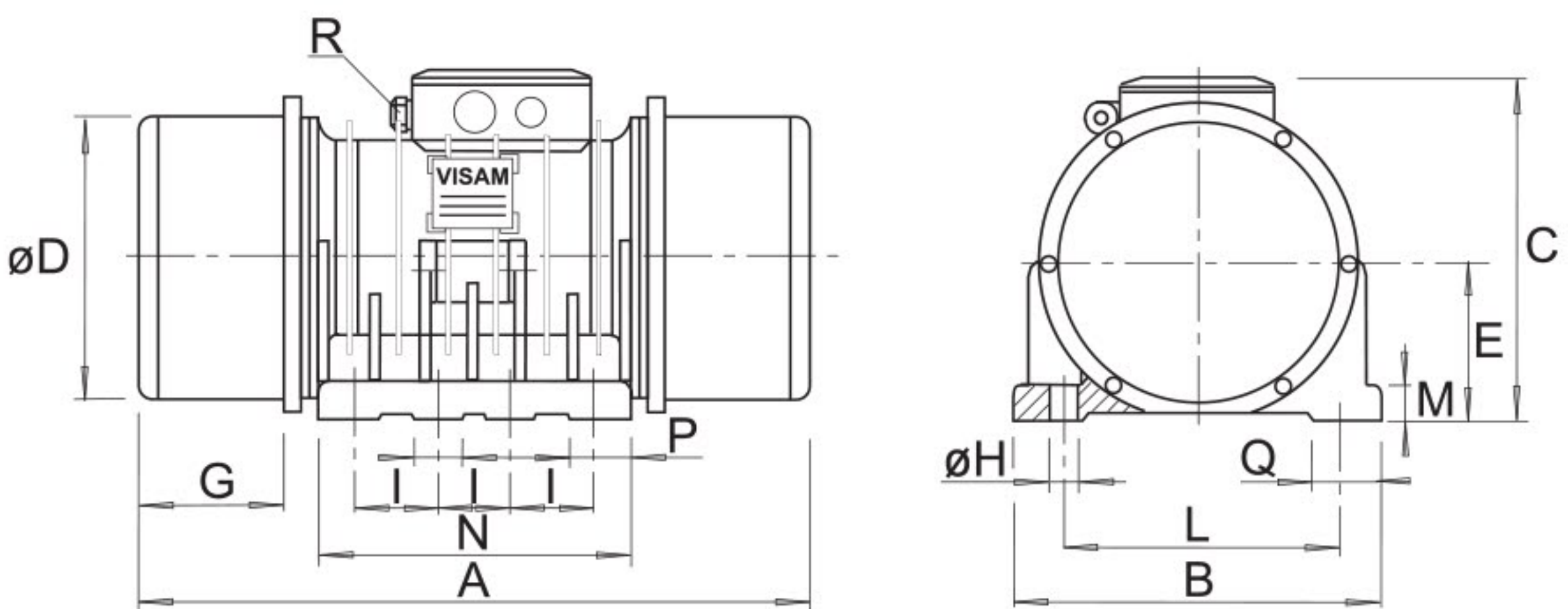


Fig. 3 • Fig. 3



| DATI GENERALI<br>GENERAL DATA |                |            | DATI MECCANICI<br>MECHANICAL DATA      |                                        |                        | DATI ELETTRICI<br>ELECTRICAL DATA |               |       |          | DATI DIMENSIONALI<br>OVERALL DIMENSIONS |       |     |     |     |     | DATI FISSAGGIO<br>FIXING DATA |     |    |      |      |    |     |     |     |                                      |
|-------------------------------|----------------|------------|----------------------------------------|----------------------------------------|------------------------|-----------------------------------|---------------|-------|----------|-----------------------------------------|-------|-----|-----|-----|-----|-------------------------------|-----|----|------|------|----|-----|-----|-----|--------------------------------------|
| Modello<br>Model              | Codice<br>Code | Gr.<br>Sz. | SMv                                    | CFv                                    | Wv                     | Pot. Assorbita                    | Corrente Nom. |       | Rapporto | Fig./Fig.                               | A     | B   | C   | D   | E   | G                             | Nr. | H  | I*** | L*** | M  | N   | P   | Q   | R<br>pressacavo<br>cable gland<br>** |
|                               |                |            | Mom. Statico<br>Static Mom.<br>(kg*mm) | Forza Centr.<br>Centrif. Force<br>(kg) | Peso<br>Weight<br>(kg) | (kW)                              | Δ (A)         | Y (A) | Is/In    |                                         |       |     |     |     |     |                               |     |    |      |      |    |     |     |     |                                      |
| SPV 1.3 D                     | SPV041D02B04AA | 04.1       | 240                                    | 150                                    | 23,0                   | 0,28                              | 1,2           | 0,7   | 3,0      | 1                                       | 406   | 194 | 204 | 148 | 86  | 101                           | 4   | 13 | 100  | 155  | 18 | 180 | 50  | 45  | M20x1,5                              |
| SPV 2.1 D                     | SPV050D01B05AA | 05.0       | 400                                    | 250                                    | 30,0                   | 0,45                              | 2,1           | 1,2   | 3,5      | 1                                       | 428   | 220 | 213 | 168 | 96  | 100                           | 4   | 17 | 115  | 170  | 20 | 200 | 65  | 50  | M20x1,5                              |
| SPV 2.8 D                     | SPV060D02B06AA | 06.0       | 520                                    | 330                                    | 37,0                   | 0,55                              | 2,5           | 1,5   | 3,5      | 1                                       | 452   | 225 | 233 | 187 | 105 | 105                           | 4   | 17 | 120  | 180  | 20 | 210 | 70  | 50  | M20x1,5                              |
| SPV 4.5 D                     | SPV070D02B07AA | 07.0       | 860                                    | 540                                    | 50,0                   | 0,70                              | 2,9           | 1,7   | 3,5      | 1                                       | 495   | 250 | 246 | 200 | 112 | 121                           | 4   | 17 | 150  | 190  | 22 | 220 | 60  | 60  | M20x1,5                              |
| SPX-50 7.0 D                  | SPX080D01B08AA | 08.0       | 1.110                                  | 700                                    | 62,5                   | 0,90                              | 3,5           | 2,0   | 3,0      | 1                                       | 548   | 280 | 258 | 212 | 117 | 143                           | 4   | 17 | 160  | 200  | 30 | 260 | 95  | 80  | M20x1,5                              |
| SPX-50 10.0 D                 | SPX090D00B09AA | 09.0       | 1.650                                  | 1.050                                  | 82,0                   | 1,10                              | 4,3           | 2,5   | 4,0      | 1                                       | 584   | 300 | 280 | 237 | 131 | 141                           | 4   | 22 | 165  | 230  | 35 | 300 | 115 | 80  | M20x1,5                              |
| SPX-50 13.0 D                 | SPX091D00B09AA | 09.1       | 2.100                                  | 1.320                                  | 100,0                  | 1,30                              | 4,8           | 2,8   | 4,0      | 1                                       | 624   | 300 | 280 | 237 | 131 | 181                           | 4   | 22 | 165  | 230  | 35 | 300 | 115 | 80  | M20x1,5                              |
| SPX-50 15.5 D                 | SPX100D00B10AA | 10.0       | 2.560                                  | 1.610                                  | 140,0                  | 2,00                              | 8,6           | 5,0   | 4,5      | 1                                       | 662   | 330 | 331 | 270 | 150 | 151                           | 4   | 25 | 165  | 270  | 35 | 360 | 150 | 90  | M25x1,5 +<br>M16X1,5(TH)             |
| SPX-50 20.0 D                 | SPX110D00B11AA | 11.0       | 3.560                                  | 2.250                                  | 173,5                  | 2,50                              | 10,0          | 6,0   | 4,5      | 1                                       | 693   | 355 | 360 | 308 | 166 | 152                           | 4   | 29 | 210  | 295  | 35 | 390 | 165 | 100 | M25x1,5 +<br>M16X1,5(TH)             |
| SPX-50 23.5 D                 | SPX111D00B11AA | 11.1       | 4.300                                  | 2.700                                  | 187,0                  | 3,00                              | 11,7          | 6,8   | 4,5      | 1                                       | 693   | 355 | 360 | 308 | 166 | 152                           | 4   | 29 | 210  | 295  | 35 | 390 | 165 | 100 | M25x1,5 +<br>M16X1,5(TH)             |
| SPV 28.0 D                    | SPV120D01B12AA | 12.0       | 6.050                                  | 3.800                                  | 254,0                  | 3,70                              | 14,7          | 8,5   | 4,5      | 2                                       | 740   | 390 | 392 | 345 | 193 | 163                           | 6   | 29 | 110  | 310  | 41 | 350 | 110 | 90  | M25x1,5 +<br>M16X1,5(TH)             |
| SPV 42.5 D                    | SPV130D01B13AA | 13.0       | 7.550                                  | 4.750                                  | 300,0                  | 5,20                              | 17,5          | 10,0  | 5,5      | 2                                       | 851   | 390 | 414 | 345 | 192 | 203                           | 6   | 29 | 115  | 320  | 45 | 370 | 115 | 75  | M25x1,5 +<br>M16X1,5(TH)             |
| SPV 56.0 D                    | SPV132D04B13AA | 13.2       | 9.800                                  | 6.160                                  | 331,0                  | 6,50                              | 21,0          | 12,0  | 5,0      | 2                                       | 917   | 390 | 414 | 345 | 192 | 243                           | 6   | 29 | 115  | 320  | 45 | 370 | 115 | 75  | M25x1,5 +<br>M16X1,5(TH)             |
| SPV-50 66.5 D                 | SPV140D02B14AA | 14.0       | 11.970                                 | 7.550                                  | 407,0                  | 7,00                              | 22,5          | 13,0  | 4,0      | 2                                       | 1.001 | 456 | 468 | 410 | 235 | 253                           | 6   | 32 | 130  | 380  | 40 | 400 | 390 | 120 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV-50 78.5 D                 | SPV141D04B14AA | 14.1       | 13.670                                 | 8.600                                  | 438,0                  | 8,00                              | 24,5          | 14,0  | 5,0      | 2                                       | 1.007 | 456 | 468 | 410 | 235 | 253                           | 6   | 32 | 130  | 380  | 40 | 400 | 390 | 120 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV-50 100.0 D                | SPV150D04B15AZ | 15.0       | 18.000                                 | 11.300                                 | 584,0                  | 10,00                             | 18,0          | 10,5  | 5,0      | 2                                       | 1.084 | 520 | 504 | 451 | 255 | 278                           | 6   | 38 | 155  | 400  | 40 | 470 | 150 | 145 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV-50 124.0 D                | SPV151D04B15AZ | 15.1       | 21.700                                 | 13.650                                 | 672,0                  | 11,00                             | 20,0          | 11,5  | 5,0      | 2                                       | 1.138 | 520 | 504 | 451 | 255 | 278                           | 6   | 38 | 155  | 400  | 40 | 470 | 150 | 145 | M32x1,5 +<br>M16X1,5(TH)             |
| SPV 200.0 D                   | SPV171D00B17AZ | 17.1       | 29.600                                 | 18.600                                 | 970,0                  | 13,50                             | 26,0          | 15,0  | 5,5      | 3                                       | 1.130 | 620 | 595 | 550 | 310 | 235                           | 8   | 45 | 140  | 520  | 50 | 530 | 100 | 120 | M40x1,5 +<br>M20X1,5(TH)             |

\* vedi codice in tabella • see code on table  
\*\* TH = pressa cavo per collegamento termistore • TH = cable gland for thermistor connection  
\*\*\*Ulteriori interessi di fissaggio sono producibili su richiesta. • Additional fixing holes are produced under request.





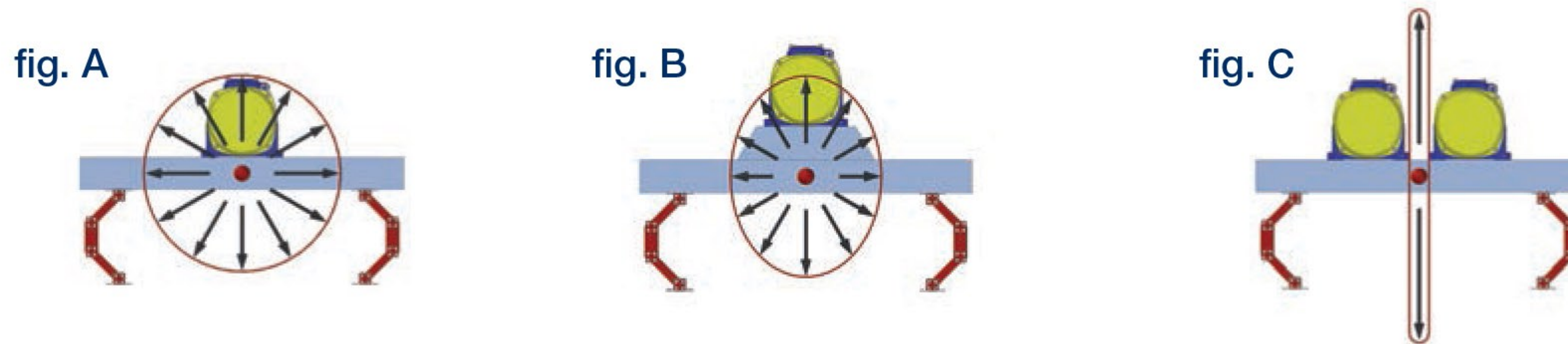
## TIPI DI VIBRAZIONE

Si possono ottenere due tipi di vibrazione:

CIRCOLARE (fig. A): ottenuta con 1 vibratore elettrico posizionato in prossimità del centro di massa della macchina

ELLITTICA (fig. B): ottenuta con 1 vibratore elettrico posizionato distante dal centro di massa della macchina

LINEARE (fig. C): ottenuta con 2 vibratori elettrici (controrotanti) posizionati in modo che la risultante attraversi il centro di massa della macchina



Il buon funzionamento di una macchina vibrante è frutto di specifiche conoscenze ed esperienze difficilmente sintetizzabili, per cui è preferibile che siano costruttori di macchine specializzati nel settore ad eseguire tutti i calcoli necessari. Tuttavia, per una valutazione preliminare del modello di vibratore richiesto dall'applicazione, è possibile utilizzare le formule sotto elencate, da considerarsi come raccomandazioni non vincolanti.

## FORMULE GENERALI E LEGENDA

$S$  (ampiezza) =  $e \cdot 2$

$e$  (eccentricità) =  $SMt / Wt$

$a$  (accelerazione) =  $CFt / Wt$

$Wt$  (peso totale macchina) =

$We + Wvt$

$We$  (peso macchina isolata)

$Wvt$  (peso totale vibratori) =

$Wv \cdot \text{nr. vibratori}$

$Wv$  (peso vibratore)

$SMt$  (momento statico totale) =

$SMv \cdot \text{nr. vibratori}$

$SMv$  (momento statico vibratore)

$CFt$  (forza centrifuga totale) =

$CFv \cdot \text{nr. vibratori}$

$CFv$  (forza centrifuga vibratore)

$\alpha$  (angolo linea di forza dal piano orizzontale)

[mm]

[mm]

[G]

[kg]

[kg]

[kg]

[kg]

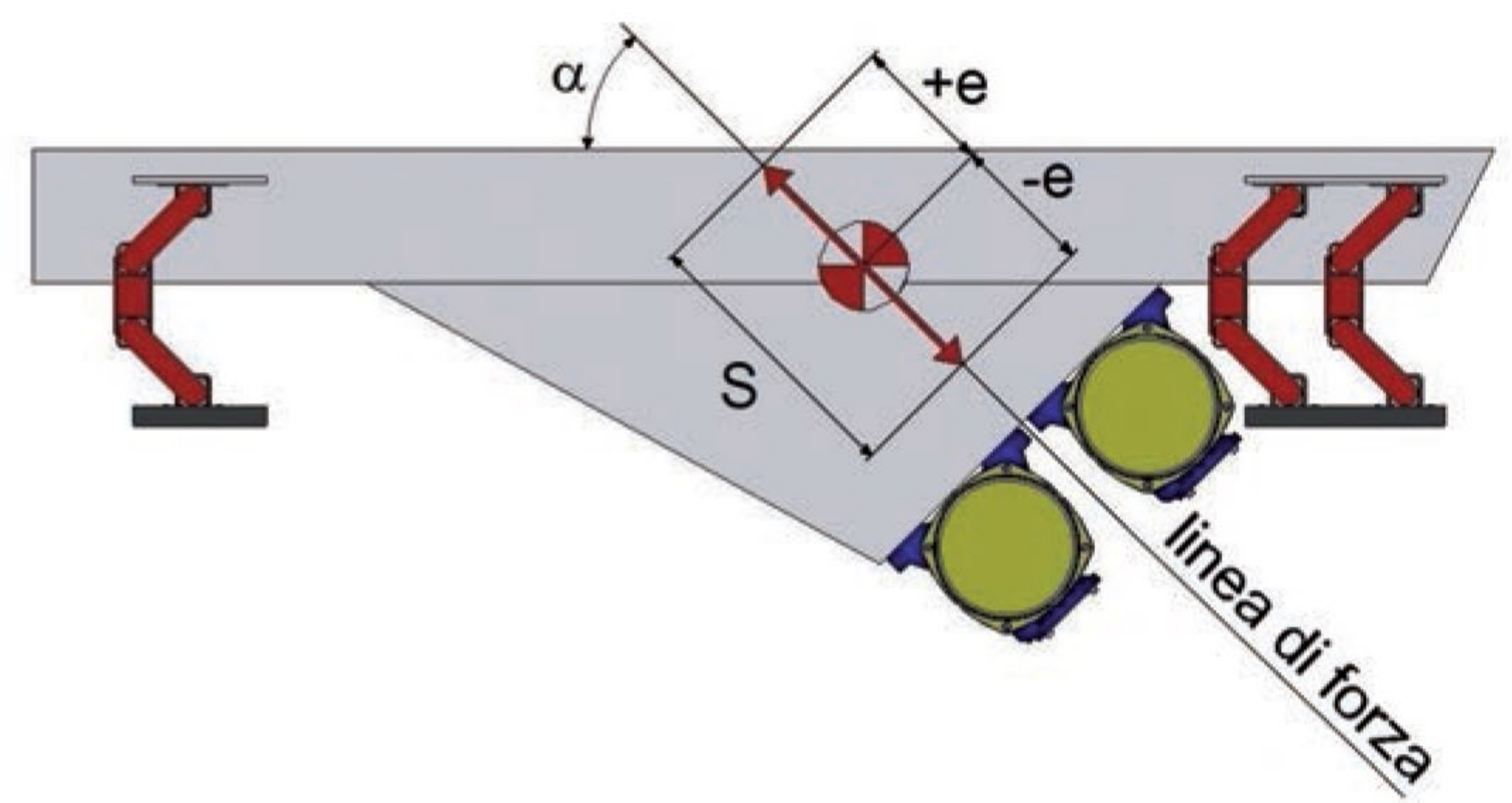
[kg\*mm]

[kg\*mm]

[kg]

[kg]

[°]



## ESEMPIO DI SELEZIONE VIBRATORE

### Dati noti sulla macchina e sul processo

Tipo di processo / vibrazione: ..... alimentatore primario / vibrazione lineare

Peso macchina ( $We$ ): ..... 1.500 kg

Frequenza di alimentazione: ..... 50 Hz

Velocità / Poli: ..... 1000 rpm / 6 Poli

Ampiezza di vibrazione richiesta ( $S$ ): ..... 8,0 mm

### Calcoli

Eccentricità ( $e$ ) =  $S / 2 \rightarrow 8,0 / 2$  ..... = 4,0 mm

Peso vibratori stimato ( $Wvt$ ) = 20-25% della peso macchina  $\rightarrow$  25% di 1.500 kg ..... = 375 kg

Peso totale macchina ( $Wt$ ) =  $We + Wvt$  (stimato)  $\rightarrow$  1.500 + 375 ..... = 1.875 kg

Momento Statico totale ( $SMt$ ) =  $Wt \cdot e \rightarrow 1.875 \cdot 4,0$  ..... = 7.500 kg\*mm

Momento Statico vibratore ( $SMv$ ) =  $SMt / 2 \rightarrow 7.500 / 2$  ..... = 3.750 kg\*mm

### Selezione e verifica

Nella scelta del modello di vibratore si consiglia di utilizzare, nei successivi calcoli, l'80% del valore del Momento Statico ( $SMv$ ), e quindi l'80% della relativa Forza Centrifuga ( $CFv$ ), per disporre di un margine operativo del 20%.

Nella sezione del Catalogo "6 poli - 50 Hz - 1000 rpm", bisogna dunque identificare un modello che, con regolazione all'80%, offra un valore di Momento Statico ( $SMv$ ) più vicino possibile a quello richiesto:

|                   |                               |                                                                            |                                                              |
|-------------------|-------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>SPV 41.5 C</b> | Momento Statico ( $SMv$ )     | = 4.300 kg*mm (100%) $\rightarrow$ (80%)                                   | ..... = 3.440 kg*mm                                          |
|                   | Forza Centrifuga ( $CFv$ )    | = 4.800 kg (100%) $\rightarrow$ (80%)                                      | ..... = 3.840 kg                                             |
|                   | Peso ( $Wv$ )                 | .....                                                                      | = 200 kg                                                     |
|                   | Calcolo eccentricità ( $e$ )  | = $SMt$ (80%) / $Wt \rightarrow (3.440 \cdot 2) / (1.500 + (200 \cdot 2))$ | ..... = 3,6 mm                                               |
|                   | Calcolo accelerazione ( $a$ ) | = $CFt$ (80%) / $Wt \rightarrow (3.840 \cdot 2) / (1.500 + (200 \cdot 2))$ | ..... = 4,0 G (si consiglia di non superare il valore 5,0 G) |

Per ottenere l'eccentricità richiesta ( $e = 4,0$  mm) occorre regolare il vibratore al 90%. Per avere, come consigliato, un margine operativo del 20% dobbiamo passare al modello successivo:

|                   |                               |                                                                            |                                                              |
|-------------------|-------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>SPV 50.0 C</b> | Momento Statico ( $SMv$ )     | = 5.100 kg*mm (100%) $\rightarrow$ (80%)                                   | ..... = 4.080 kg*mm                                          |
|                   | Forza Centrifuga ( $CFv$ )    | = 5.700 kg (100%) $\rightarrow$ (80%)                                      | ..... = 4.560 kg                                             |
|                   | Peso ( $Wv$ )                 | .....                                                                      | = 242 kg                                                     |
|                   | Calcolo eccentricità ( $e$ )  | = $SMt$ (80%) / $Wt \rightarrow (4.080 \cdot 2) / (1.500 + (242 \cdot 2))$ | ..... = 4,1 mm                                               |
|                   | Calcolo accelerazione ( $a$ ) | = $CFt$ (80%) / $Wt \rightarrow (4.560 \cdot 2) / (1.500 + (242 \cdot 2))$ | ..... = 4,6 G (si consiglia di non superare il valore 5,0 G) |



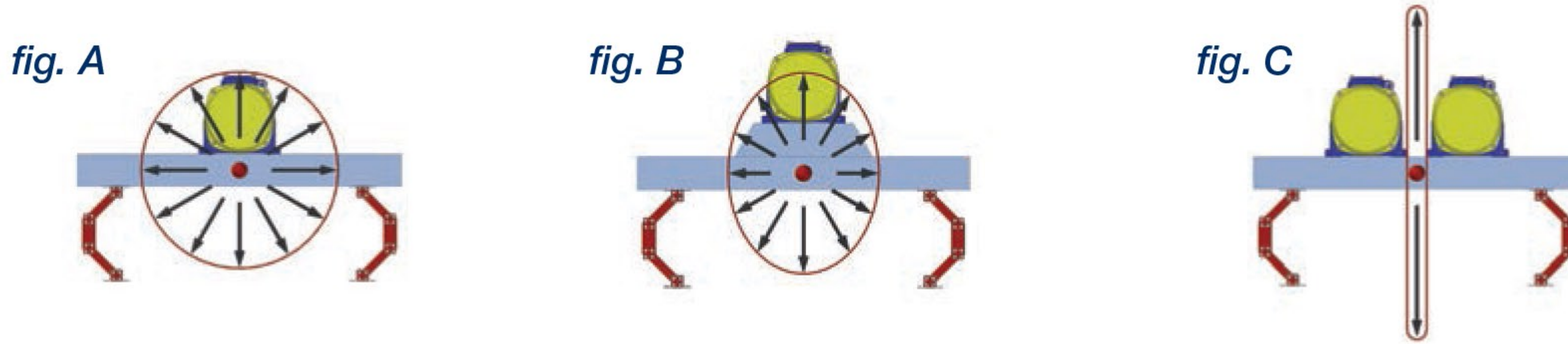
## TYPES OF VIBRATION

You can obtain three types of vibration:

CIRCULAR (fig. A): obtained with 1 electric vibrator positioned near the mass center of the equipment

ELLIPTICAL (fig. B): obtained with 1 electric vibrator positioned distant from the mass center of the equipment

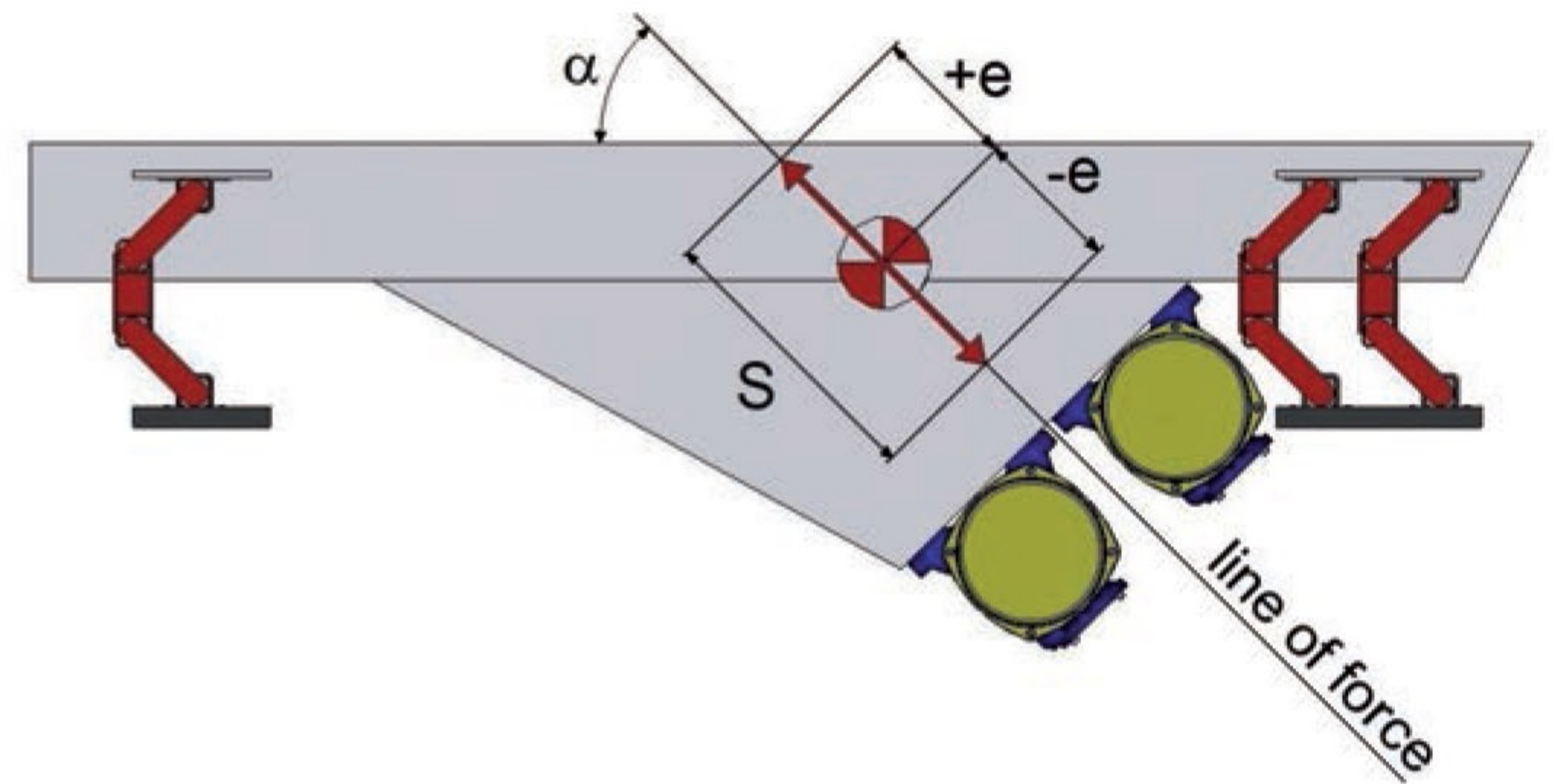
LINEAR (fig. C): obtained with 2 electric vibrators (counter-rotating) positioned so that the line of force goes through the mass center of the equipment



The functioning of a vibratory equipment is the result of a specific know-how and experience, it is recommended that only manufacturers of equipments specialized in that field make all necessary evaluations and relevant calculations. Anyway, for a preliminary evaluation of the vibrator model suitable for an application, we report here below some formulas to be considered only as not-binding indications.

## GENERAL FORMULA AND LEGENDA

|                                                  |                               |         |
|--------------------------------------------------|-------------------------------|---------|
| S (stroke) =                                     | $e * 2$                       | [mm]    |
| e (eccentricity) =                               | $SMt / Wt$                    | [mm]    |
| a (acceleration) =                               | $CFt / Wt$                    | [G]     |
| Wt (total weight of equipment) =                 | $We + Wvt$                    | [kg]    |
| We (weight of isolated equipment) =              |                               | [kg]    |
| Wvt (total weight of vibrators) =                | $Wv * nr. \text{ vibrators}$  | [kg]    |
| Wv (weight of vibrator) =                        |                               | [kg]    |
| SMt (total static moment) =                      | $SMv * nr. \text{ vibrators}$ | [kg*mm] |
| SMv (static moment of vibrator) =                |                               | [kg*mm] |
| CFt (total centrifugal force) =                  | $CFv * nr. \text{ vibrators}$ | [kg]    |
| CFv (centrifugal force of vibrator) =            |                               | [kg]    |
| $\alpha$ (line of force angle from horizontal) = |                               | [°]     |



## EXAMPLE OF VIBRATOR SELECTION

### Given data on equipment and process

|                                    |                                   |
|------------------------------------|-----------------------------------|
| Type of process / vibration:       | primary feeder / linear vibration |
| Weight of equipment (We):          | 1.500 kg                          |
| Feeding Frequency:                 | 50 Hz                             |
| Speed / Poles:                     | 1000 rpm / 6 Poles                |
| Requested stroke of vibration (S): | 8,0 mm                            |

### Calculations

|                                     |                                                                                               |                         |
|-------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------|
| Eccentricity (e)                    | $= S / 2 \rightarrow 8,0 / 2$                                                                 | $= 4,0 \text{ mm}$      |
| Weight of vibrators estimated (Wvt) | $= 20\text{-}25\% \text{ of equipment weight } \rightarrow 25\% \text{ of } 1.500 \text{ kg}$ | $= 375 \text{ kg}$      |
| Total equipment weight (Wt)         | $= We + Wvt \text{ (estimated)} \rightarrow 1.500 + 375$                                      | $= 1.875 \text{ kg}$    |
| Total Static Moment (SMt)           | $= Wt * e \rightarrow 1.875 * 4,0$                                                            | $= 7.500 \text{ kg*mm}$ |
| Static Moment of vibrator (SMv)     | $= SMt / 2 \rightarrow 7.500 / 2$                                                             | $= 3.750 \text{ kg*mm}$ |

### Selection and checking

When selecting the vibrator model, it is advisable to use, for all further calculations, the 80% of the value of Static Moment (SMv), therefore the 80% of the relevant Centrifugal Force (CFv), in order to have an operative safety margin of 20%.

In the Catalogue section "6 poles - 50 Hz - 1000 rpm", we must identify a model that, with 80% of setting, will grant a value of Static Moment (SMv) the closest possible to the value required:

|                   |                              |                                                                   |                                                               |
|-------------------|------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|
| <b>SPV 41.5 C</b> | Static Moment (SMv)          | $= 4.300 \text{ kg*mm (100\%)} \rightarrow (80\%)$                | $= 3.440 \text{ kg*mm}$                                       |
|                   | Centrifugal Force (CFv)      | $= 4.800 \text{ kg (100\%)} \rightarrow (80\%)$                   | $= 3.840 \text{ kg}$                                          |
|                   | Weight (Wv)                  |                                                                   | $= 200 \text{ kg}$                                            |
|                   | Eccentricity calculation (e) | $= SMt (80\%) / Wt \rightarrow (3.440 * 2) / (1.500 + (200 * 2))$ | $= 3,6 \text{ mm}$                                            |
|                   | Acceleration calculation (a) | $= CFt (80\%) / Wt \rightarrow (3.840 * 2) / (1.500 + (200 * 2))$ | $= 4,0 \text{ G (it is advisable not to exceed 5,0 G value)}$ |

To obtain the requested eccentricity (e= 4,0 mm) we should set the vibrator at 90%. To keep the recommended safety operative margin of 20%, we have to consider the next model:

|                   |                              |                                                                   |                                                               |
|-------------------|------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|
| <b>SPV 50.0 C</b> | Static Moment (SMv)          | $= 5.100 \text{ kg*mm (100\%)} \rightarrow (80\%)$                | $= 4.080 \text{ kg*mm}$                                       |
|                   | Centrifugal Force (CFv)      | $= 5.700 \text{ kg (100\%)} \rightarrow (80\%)$                   | $= 4.560 \text{ kg}$                                          |
|                   | Weight (Wv)                  |                                                                   | $= 242 \text{ kg}$                                            |
|                   | Eccentricity calculation (e) | $= SMt (80\%) / Wt \rightarrow (4.080 * 2) / (1.500 + (242 * 2))$ | $= 4,1 \text{ mm}$                                            |
|                   | Acceleration calculation (a) | $= CFt (80\%) / Wt \rightarrow (4.560 * 2) / (1.500 + (242 * 2))$ | $= 4,6 \text{ G (it is advisable not to exceed 5,0 G value)}$ |



## SPV



### **Vibratori a 10 e 12 poli** **10 and 12 pole Vibrators**

Vibratori a bassa velocità per applicazioni specifiche (es. industria molitoria e fonderia)

*Low speed vibrators for specific applications (ex. milling and foundry industry)*

## SPEX



### **Vibratori ATEX** **ATEX Vibrators**

Tutta la gamma Visam è conforme per utilizzo in zona ATEX 2 e 22 

- Ex nAc IIT3
- Ex tc III C T140 °C

Su richiesta per zona ATEX 21 

- Ex ta III C T140 °C

*All Visam range is suitable for use in zone ATEX 2 and 22 *

- Ex nAc II T3
- Ex tc III C T140 °C

*On request for zone ATEX 21 *

- Ex ta III C T140 °C

## DCV



### **Vibratori Corrente Continua (12 - 24V)** **Direct Current Vibrators (12 - 24V)**

Vibratori per utilizzo in applicazioni dove non è disponibile allacciamento diretto alla rete elettrica.

*Vibrators for applications where it is not available direct connection to the electricity network.*

## AMV



### **Mini Vibratori** **Mini Vibrators**

Vibratori di ridotte dimensioni per applicazioni ad uso discontinuo e con bassa forza centrifuga richiesta.

*Vibrators of small size for applications with discontinuous duty and low centrifugal force required.*

## SPF



### **Vibratori con attacco a Flangia** **Flange mounted Vibrators**

Vibratori con attacco a flangia per applicazione su vagli circolari e buratti.

*Flange mounted vibrators for circular screens and deburring machines application*



## SPC



### **Vibratori con attacco rapido (culla)** **Quick release Vibrators (cradle)**

Modelli richiesti in particolare dall'industria del cemento e delle costruzioni per l'esigenza di spostare frequentemente i vibratori su diversi stampi.

*Models particularly requested by the concrete and construction industry to meet the requirement of frequent re-positioning of vibrators on different moulds.*

## HFV

## HFC



### **Vibratori ad alta Frequenza** **High Frequency Vibrators**

Vibratori ad alta velocità (6000 o 9000 rpm) per l'industria dell'edilizia e della prefabbricazione. Modelli disponibili anche nella versione ad attacco rapido (culla) per l'esigenza di spostare frequentemente i vibratori da una cassaforma all'altra.

*High speed vibrators (6000 or 9000 rpm) for concrete and pre fab industry. Quick release (cradle) models are available to meet the requirement of frequent re-positioning of vibrators on different moulds.*

## VFV

## VFC



### **Vibratori a frequenza variabile** **Variable frequency Vibrators**

Vibratori a velocità variabile (da 4000 a 6000 rpm) per l'industria della prefabbricazione. Modelli disponibili anche nella versione ad attacco rapido (culla) per l'esigenza di spostare frequentemente i vibratori da una cassaforma all'altra.

*Variable speed vibrators at high speed (from 4000 to 6000 rpm) for pre fab industry. Quick release (cradle) models are available to meet the requirement of frequent re-positioning of vibrators on different moulds.*

## EMC



### **Convertitori Elettronici Modulari** **Electronic Modular Converters**

Convertitori elettronici di frequenza e tensione modulari per l'azionamento di vibratori (serie HFV/HFC e VFV/VFC), progettati per le specifiche esigenze dell'industria dell'edilizia e della prefabbricazione.

*Electronic modular frequency and voltage converters for vibrators (series HFV/HFC and VFV/VFC), designed to suit the specific needs of concrete and pre fab industry.*



CAVA E MINIERA  
 QUARRY AND MINING



FONDERIA E ACCIAIERIA  
 FOUNDRY AND STEEL



ALIMENTARE E CHIMICA  
 FOOD AND CHEMICAL



MOLITORIA E ZOOTECCIA  
 MILLING AND ZOOTECHNICAL



CEMENTO E  
 PREFABBRICAZIONE  
 CONCRETE AND PRE FAB





Presenti in tutto il mondo, con distributori in oltre 30 Paesi, per essere sempre vicini alle esigenze dei mercati internazionali.

*Worldwide presence, with a network of distributors in more than 30 Countries, to be always close to the international markets needs.*

