

# EVISA E500.R



The lubricated rotary vane pumps EVISA are designed to be used in a wide range of industrial and healthcare applications.

They can run continuously from atmospheric pressure to ultimate vacuum.

They are very silent and extremely robust.

- Single stage vacuum pump
- Continuous operation from atmospheric pressure to end vacuum :  $1.10^{-1}$  mbar
- High pumping speed even at low pressure
- Integrated oil mist filter on the exhaust
- IE3 motor

## Technical characteristics

|                            |                                                                                                   | 50 Hz                                        | 60 Hz                                        |
|----------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|
| E500.R<br>HV               | Nominal flow rate $\text{m}^3\cdot\text{h}^{-1}$ - <i>cfm</i>                                     | 513 - 302                                    | 616 - 362.6                                  |
|                            | PNEUROP pumping speed <sup>(1)</sup> $\text{m}^3\cdot\text{h}^{-1}$ - <i>cfm</i>                  | 496 - 291.6                                  | 595 - 350.2                                  |
|                            | Pumping speed at 1 mbar inlet pressure <sup>(1)</sup> $\text{m}^3\cdot\text{h}^{-1}$ - <i>cfm</i> | 266 - 156.6                                  | 320 - 188.3                                  |
|                            | Without gas ballast    End vacuum mbar - <i>torr</i>                                              | $\leq 1 \times 10^{-1}$ - $8 \times 10^{-2}$ | $\leq 1 \times 10^{-1}$ - $8 \times 10^{-2}$ |
|                            | Fully opened gas ballast    End vacuum mbar - <i>torr</i>                                         | $\leq 1$ - 0.75                              | $\leq 1$ - 0.75                              |
|                            | Water vapor permitted maximum pressure mbar - <i>torr</i>                                         | 11.3 - 8.4                                   | 12.2 - 9.1                                   |
| E500.R                     | Water vapor capacity $\text{kg}\cdot\text{h}^{-1}$                                                | 2.7                                          | 3.5                                          |
|                            | Without gas ballast    End vacuum mbar - <i>torr</i>                                              | $\leq 3$ - 2.3                               | $\leq 3$ - 2.3                               |
|                            | Fully opened gas ballast    End vacuum mbar - <i>torr</i>                                         | $\leq 5$ - 3.8                               | $\leq 5$ - 3.8                               |
|                            | Water vapor permitted maximum pressure mbar - <i>torr</i>                                         | 7.9 - 5.9                                    | 8.5 - 6.4                                    |
| 100 % synthetic oil        |                                                                                                   | MV99S                                        | MV99S                                        |
| Oil capacity l - <i>qt</i> |                                                                                                   | 14 - 14.8                                    | 14 - 14.8                                    |
| Noise level dB(A)          |                                                                                                   | 73                                           | 77                                           |

<sup>(1)</sup> Measurements according to PNEUROP 6602 specifications - 20°C

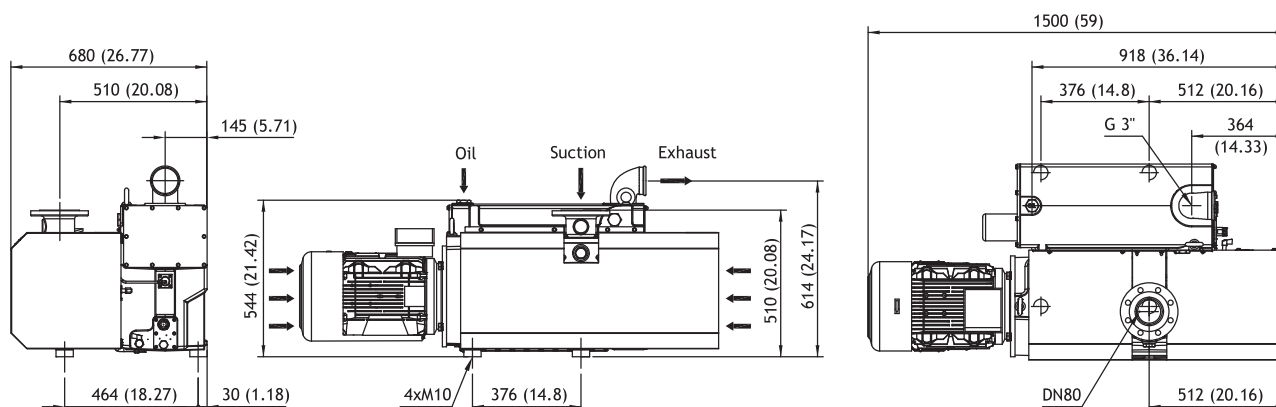
## Versions

| GEOGRAPHIC ZONE                  |                                  | EUROPE        | ASIA<br>MIDDLE-EAST |
|----------------------------------|----------------------------------|---------------|---------------------|
| Electrical<br>motor              | Number of phases                 | 3             | 3                   |
|                                  | Voltage V                        | 400 / 690     | 380                 |
|                                  | Period Hz                        | 50            | 60                  |
|                                  | Motor power                      | 11 kW         | 13.2 kW             |
|                                  | Rotation speed $\text{min}^{-1}$ | 1000          | 1200                |
| Inlet connection <sup>(2)</sup>  |                                  | DN80 / 3" BSP | DN80 / 3" BSP       |
| Outlet connection <sup>(2)</sup> |                                  | 3" BSP        | 3" BSP              |
| Weight with oil kg - <i>lb</i>   |                                  | 462 - 1019    | 497 - 1096          |

<sup>(2)</sup> DN 80 ISO-K connector can be supplied, see accessories

# Lubricated rotary vane vacuum pumps

## Dimensions mm (inch)



## References

|                                             | E500.R HV                           |                     | E500.R                              |                     |
|---------------------------------------------|-------------------------------------|---------------------|-------------------------------------|---------------------|
|                                             | WITH GAS BALLAST                    | WITHOUT GAS BALLAST | WITH GAS BALLAST                    | WITHOUT GAS BALLAST |
| <b>EUROPE</b><br>3ph, 400/690V-50Hz         | <b>823913</b><br>+<br><b>723973</b> | <b>823913</b>       | <b>823912</b><br>+<br><b>723973</b> | <b>823912</b>       |
| <b>ASIA / MIDDLE-EAST</b><br>3ph, 380V-60Hz | Contact us                          | Contact us          | Contact us                          | Contact us          |

**STAINLESS STEEL version : contact us**

## Maintenance kits

|                                                                              |               |
|------------------------------------------------------------------------------|---------------|
| <b>3 000 hour usual maintenance</b><br>with viton o'ring for oil mist filter | <b>724184</b> |
| <b>12 000 hour preventive maintenance</b>                                    | <b>724191</b> |
| <b>Gasket set</b>                                                            | <b>624479</b> |



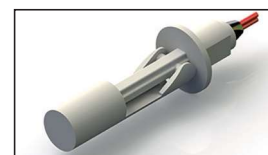
3 000 hour usual maintenance



12 000 hour preventive maintenance

## Accessories and Options

|          |                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | Oil Level Safety (OLS) with float                                                                 | 624398                                                                                                                                                                                                                                                                                                                                                                                |
|          | Additional filter for gas ballast                                                                 | 617710                                                                                                                                                                                                                                                                                                                                                                                |
|          | Timer box for oil level safety (base mounting)                                                    | 670810                                                                                                                                                                                                                                                                                                                                                                                |
|          | NC bimetal temperature safety - opening at 120°C                                                  | 624389                                                                                                                                                                                                                                                                                                                                                                                |
|          | Oil Level Safety and PT100 temperature sensor                                                     | 624405                                                                                                                                                                                                                                                                                                                                                                                |
|          | PT100 temperature sensor                                                                          | 624388                                                                                                                                                                                                                                                                                                                                                                                |
| <b>2</b> | 3" BSP suction filter<br>Type 301                                                                 | Paper cartridge 717369<br>Polyester cartridge 717370<br>Carbon cartridge 717371                                                                                                                                                                                                                                                                                                       |
|          | Vacuum gauge fitted on filter                                                                     | 617536                                                                                                                                                                                                                                                                                                                                                                                |
|          | Vacuum-tight suction filter ST301                                                                 | Paper cartridge 361627                                                                                                                                                                                                                                                                                                                                                                |
|          | straight-through                                                                                  | Polyester cartridge 620166                                                                                                                                                                                                                                                                                                                                                            |
|          | Deflector for filters CT 301 and ST 301                                                           | 215696                                                                                                                                                                                                                                                                                                                                                                                |
|          | Bracket for mural fixing for filters CT, ST and Liquid trap 5NG                                   | 617512                                                                                                                                                                                                                                                                                                                                                                                |
|          | Flanges DN 80 for filters CT, ST and Liquid trap 5NG                                              | 617513                                                                                                                                                                                                                                                                                                                                                                                |
| <b>3</b> | Liquid trap 5NG<br>650 m <sup>3</sup> .h <sup>-1</sup><br>3" BSP                                  | Brass head / polycarbonate cylinder / without float 717786<br>Brass head / polycarbonate cylinder / with float 720813<br>Brass head / Pyrex cylinder / without float 717740<br>Brass head / Pyrex cylinder / with float 720814<br>Pyrex bottle 250 ml under trap assembly 615441<br>Pyrex bottle 500 ml under trap assembly 615442<br>Pyrex bottle 1000 ml under trap assembly 615443 |
|          | Electro-pneumatic automatic drain with control board                                              | 816002                                                                                                                                                                                                                                                                                                                                                                                |
|          | Electrical automatic drain with control board                                                     | 816003                                                                                                                                                                                                                                                                                                                                                                                |
|          | Vacuum hose (0,6 m) DN80                                                                          | 618269                                                                                                                                                                                                                                                                                                                                                                                |
|          | Vacuum hose (1 m) DN80                                                                            | 617833                                                                                                                                                                                                                                                                                                                                                                                |
|          | Vacuum hose (1,5 m) MM 3" BSP                                                                     | 719925                                                                                                                                                                                                                                                                                                                                                                                |
|          | Vacuum hose (4 m) M 3" BSP - DN80                                                                 | 618573                                                                                                                                                                                                                                                                                                                                                                                |
|          | Base frame assembly height 200 mm                                                                 | 624328                                                                                                                                                                                                                                                                                                                                                                                |
| <b>4</b> | Elevated base frame<br>(H=525 mm)                                                                 | For 1 pump 624329                                                                                                                                                                                                                                                                                                                                                                     |
|          | Direct starter<br>(wall mounting)                                                                 | Without regulation contact 3-ph 400V 719238<br>With regulation contact LG7 3-ph 400V 719239                                                                                                                                                                                                                                                                                           |
|          | Star / Delta starter 400V + N + E (without pressure valve)                                        | 718392                                                                                                                                                                                                                                                                                                                                                                                |
|          | - Electrical unloading valve (230V-50Hz)                                                          | 617496                                                                                                                                                                                                                                                                                                                                                                                |
|          | - Pneumatic unloading valve (6 bar)                                                               | 618257                                                                                                                                                                                                                                                                                                                                                                                |
|          | Exhaust double elbow mounting                                                                     | 623534                                                                                                                                                                                                                                                                                                                                                                                |
|          | Double acting electric butterfly cast iron valve DN80<br>with electric actuator 5/2 NF 230V-50Hz  | 617522                                                                                                                                                                                                                                                                                                                                                                                |
|          | Double acting pneumatic butterfly cast iron valve DN80<br>with electric actuator 5/2 NF 230V-50Hz | 617523                                                                                                                                                                                                                                                                                                                                                                                |
|          | Aluminium adapter M3" / DN80 ISO K                                                                | 117130                                                                                                                                                                                                                                                                                                                                                                                |
|          | Aluminium adapter DN80 ISO K                                                                      | 117129                                                                                                                                                                                                                                                                                                                                                                                |
|          | Aluminium clamping collar DN63/250 ISO K                                                          | 4 X 361653                                                                                                                                                                                                                                                                                                                                                                            |
|          | Centering ring Aluminium / PERBUNAN                                                               | 361650                                                                                                                                                                                                                                                                                                                                                                                |
|          | Stainless steel hose (0,5 m) DN80 ISO K                                                           | 361651                                                                                                                                                                                                                                                                                                                                                                                |
|          | Stainless steel hose (1 m) DN80 ISO K                                                             | 361652                                                                                                                                                                                                                                                                                                                                                                                |



**1** Oil Level Safety



**2** suction filter  
type 301



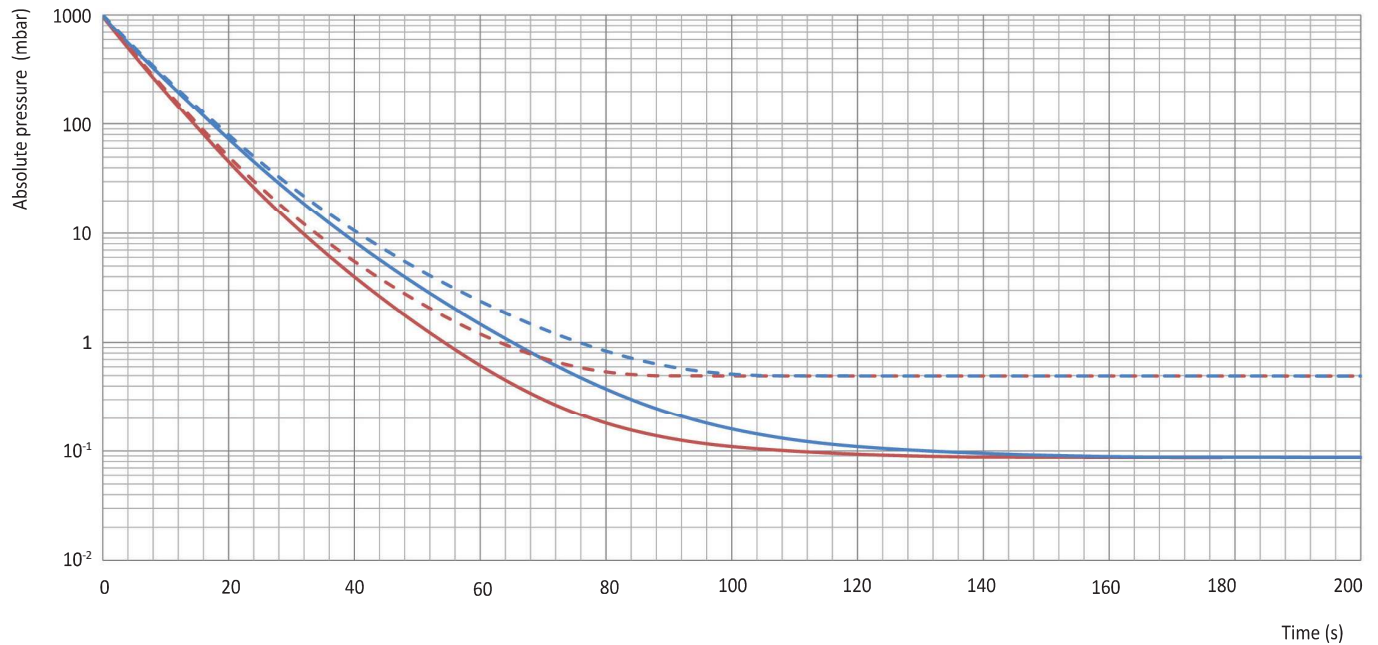
**3** Liquid trap 5NG  
with mechanical  
stop and  
optional bottle



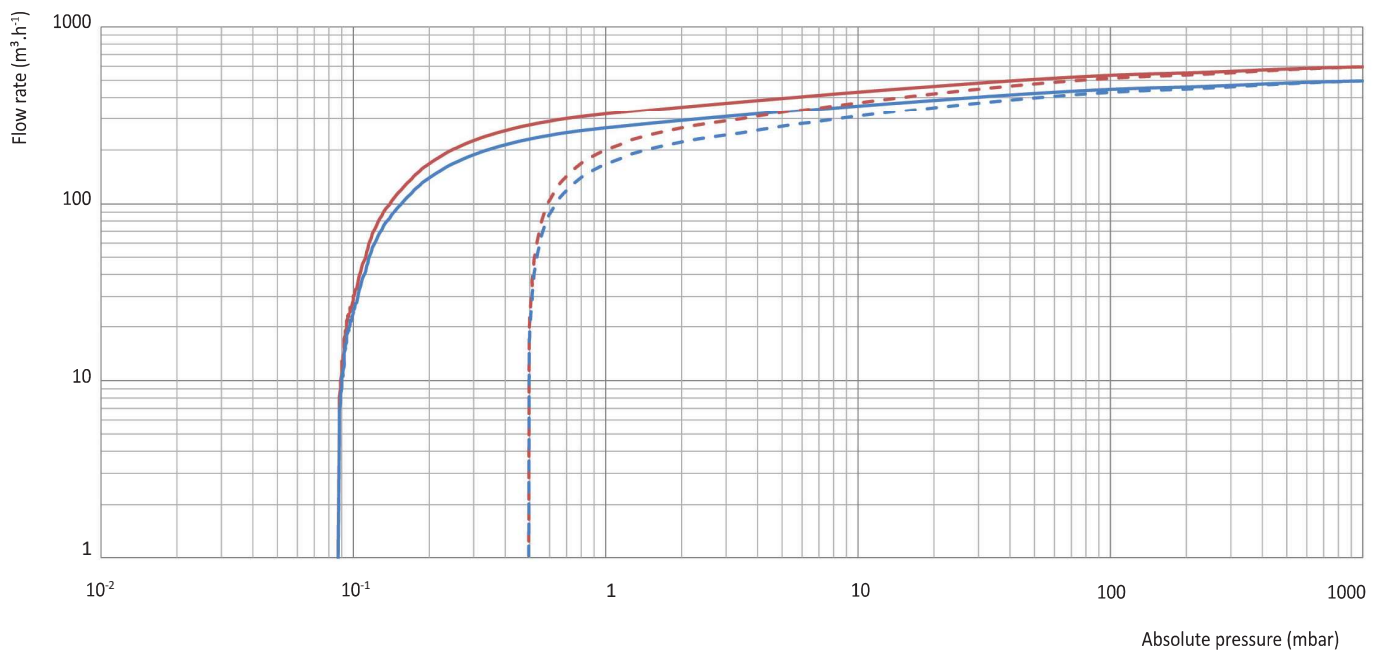
**4** Elevated base frame  
for 1 pump

# Lubricated rotary vane vacuum pumps

## Performance curves



## Débit - pression



— 60 Hz - without gas ballast  
— 50 Hz - without gas ballast

- - 60 Hz - with opened gas ballast  
- - 50 Hz - with opened gas ballast