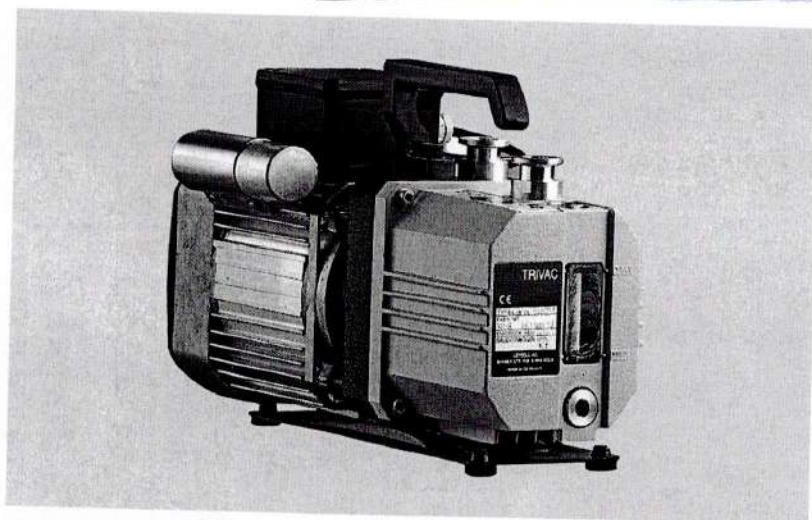


# TRIVAC E, Two-Stage, Oil Sealed Rotary Vane Vacuum Pump

1.7. Tehničke karakteristike  
2.8. - 11 -



TRIVAC D 2,5 E

The TRIVAC E pump is an oil sealed vacuum pump operating according to the rotary vane principle. Oil which is injected into the pump chamber is used for sealing, lubrication and cooling purposes.

The result is the TRIVAC E rotary vane vacuum pump.

Beyond the usual quality and reliability of the B series pumps, the TRIVAC E pump offers improvements in the area of quieter operation, smaller size and improved service-friendliness.

The intake and exhaust ports are equipped with small flanges. Besides standard voltages and frequencies, Leybold offers world motors, which are specially required by OEMs.

## Advantages to the User

- Highly reliable
- Small and compact
- Quiet operation
- Environmentally compatible (low oil consumption, EMI compatible; IP 54 protection)
- Process quality (low backstreaming of oil)
- Motor for all standard supply voltages and frequencies
- Safe and intelligent vacuum protection (hermetically sealed)
- Free of yellow metals
- Compliance with international standards (CE)
- Suitable for continuous operation at 1000 mbar (750 Torr)
- Low power consumption
- Better individual performance given by 3 stage gas ballast device
- High water vapor tolerance
- Simplified customizing ability

## Typical Applications

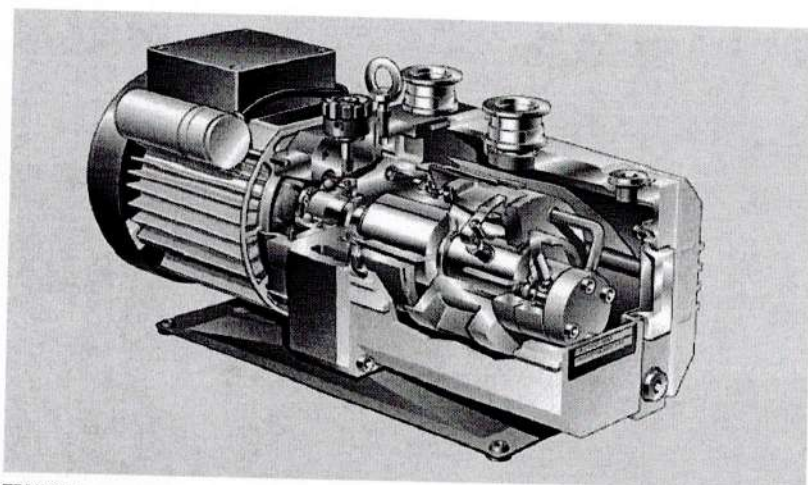
- Mass and X-ray spectrometers
- Electron beam microscopes
- Leak detectors
- Sterilizers
- Freeze-drying systems
- Chemical and research labs
- General vacuum engineering
- Backing pump for high vacuum pump systems

## Supplied Equipment

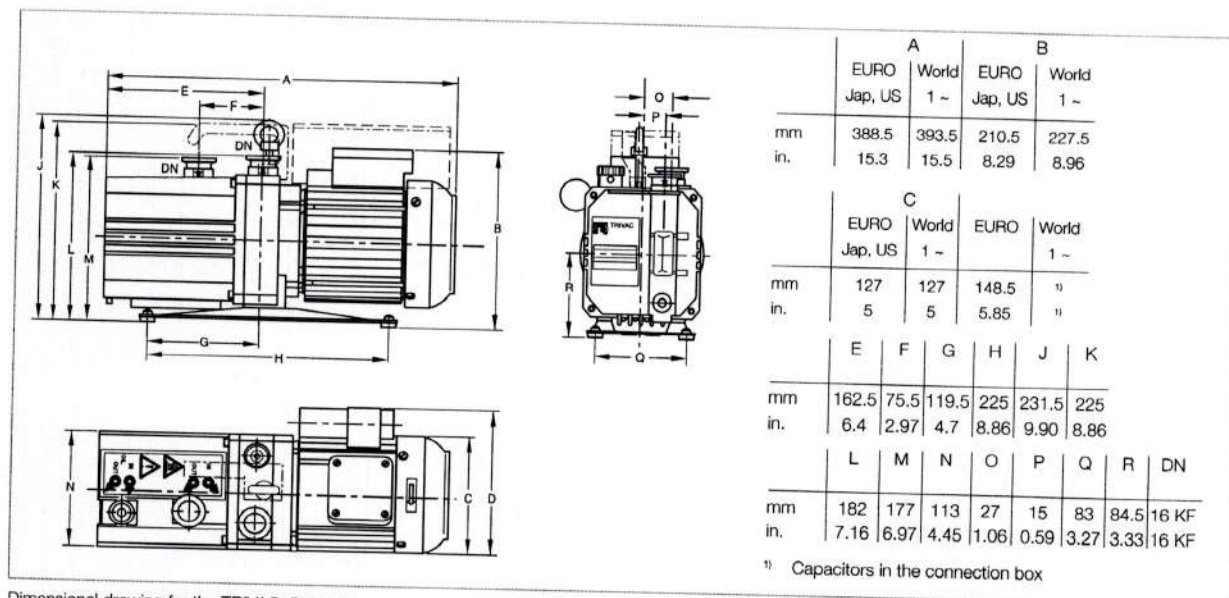
- Dirt trap
- Oil filling included separately (standard LVO 100)
- Gas ballast device
- Mains cord with the specific plug for EURO, US and Japan motors
- Optional: Mains cord with country specific plug for the world motor
- With handle

All pumps are 100% subjected to a vacuum test before delivery!

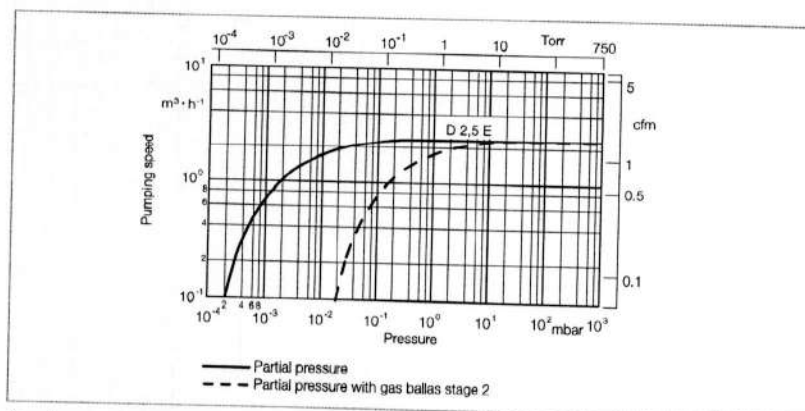
# TRIVAC D 2,5 E



TRIVAC E



Dimensional drawing for the TRIVAC D 2,5 E



Pumping speed of the TRIVAC D 2,5 E at 50 Hz (60 Hz curves at the end of the chapter)

## Technical Data

## TRIVAC D 2,5 E

|  |                         | 50 Hz  | 60 Hz  |
|--|-------------------------|--|--|
| Nominal pumping speed <sup>1)</sup>                            | m <sup>3</sup> /h (cfm) | 3.2 (1.9)  | 3.6 (2.1)  |
| Pumping speed <sup>1)</sup>                                    | m <sup>3</sup> /h (cfm) | 2.7 (1.6)  | 3.3 (1.9)  |
| Ultimate partial pressure without gas ballast                  | mbar (Torr)             | $\leq 5 \times 10^{-4}$ ( $\leq 3.8 \times 10^{-4}$ )                                | $\leq 5 \times 10^{-4}$ ( $\leq 3.8 \times 10^{-4}$ )                                |
| Ultimate total pressure without gas ballast <sup>2)</sup>      | mbar (Torr)             | $\leq 2 \times 10^{-3}$ ( $\leq 1.5 \times 10^{-3}$ )                                | $\leq 2 \times 10^{-3}$ ( $\leq 1.5 \times 10^{-3}$ )                                |
| Ultimate total pressure with gas ballast Stage 2 <sup>2)</sup> | mbar (Torr)             | $\leq 3 \times 10^{-2}$ ( $\leq 2.3 \times 10^{-2}$ )                                | $\leq 3 \times 10^{-2}$ ( $\leq 2.3 \times 10^{-2}$ )                                |
| Water vapor tolerance  |                         |  |  |
| Stage 1  | mbar (Torr)             | 10 (7.5)   | 10 (7.5)   |
| Stage 2  | mbar (Torr)             | 20 (15)  | 20 (15)  |
| Stage 3  | mbar (Torr)             | 30 (22.5)  | 30 (22.5)  |
| Water vapor capacity   |                         |  |  |
| Stage 1  | g/h (lbs/h)             | 20 (0.044)   | 25 (0.055)   |
| Stage 2  | g/h (lbs/h)             | 40 (0.088)   | 50 (0.110)   |
| Stage 3  | g/h (lbs/h)             | 60 (0.132)   | 75 (0.165)   |
| Oil filling, min. / max.                                       | l (qt)                  | 0.4 / 0.7 (0.42 / 0.74)  | 0.4 / 0.7 (0.42 / 0.74)  |
| Noise level  | dB(A)                   | $\leq 47$  | $\leq 49$  |
| Admissible ambient temperature                                 | °C (°F)                 | +10 to +50 (+50 to +122) (EURO motor) /<br>+10 to +40 (+50 to +104) (US/Japan motor) | +10 to +50 (+50 to +122) (EURO motor) /<br>+10 to +40 (+50 to +104) (US/Japan motor) |
| Motor rating   | W (HP)                  | 250 (0.34)   | 300 (0.41)   |
| Nominal speed  | rpm                     | 1400   | 1600   |
| Type of protection   | IP                      | 54   | 54   |
| Weight (with oil filling)                                      | kg (lbs)                | 16.1 (35.4)  | 16.1 (35.4)  |
| Connections (Intake and Exhaust)                               | DN                      | 16 KF  | 16 KF  |

<sup>1)</sup> To DIN 28 426 T1

<sup>2)</sup> To DIN 28 400 and following numbers

## Motor Dependent Data

| Motors for D 2,5 E | Voltage (V)            | Frequency (Hz) | Voltage tolerance | Power consumption (W (HP)) | Nominal current (A) | Protection | Nominal speed (rpm) |
|--------------------|------------------------|----------------|-------------------|----------------------------|---------------------|------------|---------------------|
| EURO 1 ~           | 220 - 240/230          | 50/60          | ± 5%              | 250/300 (0.34/0.41)        | 1.8/1.4             | IP 54      | 1400/1600           |
| World 1 ~          | 100 - 120<br>200 - 240 | 50/60          | ± 5%              | 250/300 (0.34/0.41)        | 4.4/3.0<br>2.2/1.5  | IP 54      | 1400/1600           |