

# Microsart<sup>®</sup> maxi.vac | Microsart<sup>®</sup> mini.vac

Laboratory Vacuum Pumps for Microbiology Analysis



 $Microsart^{\circ}$  maxi.vac Laboratory Vacuum pump 22 I/min for 3- and 6-place manifolds

### Description

Microsart<sup>®</sup> maxi.vac and Microsart<sup>®</sup> mini.vac are especially designed to meet the requirements of microbiology laboratories. The absolute vacuum is limited to 100 mbar. The adjustable vacuum allows for trouble free working according to ISO 8199 ("Water quality: General guide to enumeration of micro-organisms by culture). The differential pressure during filtration should not exceed 700 mbar to allow a gentle enrichment of the microorganisms.



Microsart<sup>®</sup> mini.vac Laboratory Vacuum pump 6 I/min for 1-branch manifolds and individual filter holders

#### **Efficient filtration**

The intelligent pump design facilitates easy and efficient operation, even in limited working space. The noise development during operation is reduced by 50% compared to conventional membrane pumps. An integral part of the pumps is a newly structured membrane which guarantees leak-proof operation.

The pumps are available in two sizes. The small compact pump Microsart<sup>®</sup> mini.vac with 6 I/min air flow is ideal for single vacuum filtrations and the standard pump Microsart<sup>®</sup> maxi.vac, with 22 I/min air flow, for 3- to 6-place manifolds.

- Compliance with ISO 8199 "Water Testing Guideline"
- Adjustable vacuum
- Reduced noise
- Structured Membrane Patented protection against leakage
- Compact design Small foot print
- Maintenance-free, 5,000 operating hours guaranteed

# **Technical Specifications**

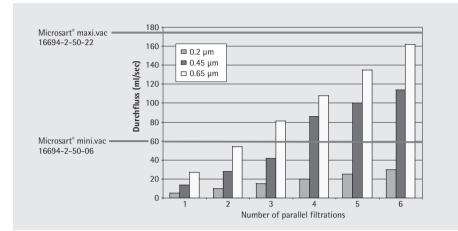
#### Microsart<sup>®</sup> maxi.vac Laboratory Vacuum Pump 22 I

| 221  |  |
|--|--|
| Delivery                                   | 22 (I/min)                                       |
| Absolute Vacuum                            | 100 (mbar)                                       |
| Noise level [100 mbar]                     | 57.5 – 59.0 dBA                                  |
| Operating Pressure (max)                   | 1 (bar)  |
| Materials (contact with filtrate possible) | Aluminum,<br>CR (Neoprene),<br>NBR<br>(Perbunan) |
| Connectors for Tube                        | ID 9 (mm)  |
| Ambient Temperature                        | 5 40°C   |
| Mains 16694-2-50                           | 230 V   50 Hz                                    |
| Mains 16694-1-60                           | 115 V   60 Hz                                    |
| Motor Protection                           | IP 44  |
| Power P1                                   | 130 W  |
| Operating Current                          | 0.9 A  |
| Weight                                     | 7.1 kg   |
| Dimensions L×H×W (mm)                      | 261×204×110                                      |
|  |  |

#### Microsart<sup>®</sup> mini.vac Laboratory Vacuum Pump 6 l

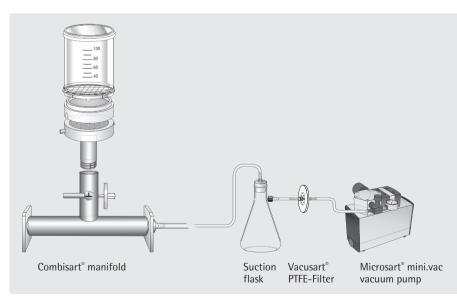
| Delivery                                   | 6 (I/min)                                |
|--|--|
| Absolute Vacuum                            | 100 (mbar)                               |
| Noise level [100 mbar]                     | 53.5 dBA                                 |
| Operating Pressure (max)                   | 2.5 (bar)                                |
| Materials (contact with filtrate possible) | PPS, EPDM,<br>FPM (Fluoro-<br>elastomer) |
| Connectors for Tube                        | ID 4 (mm)                                |
| Ambient Temperature                        | 5 40°C                                   |
| Mains 16694-2-50                           | 230 V   50 Hz                            |
| Mains 16694-1-60                           | 115 V   60 Hz                            |
| Motor Protection                           | IP 20                                    |
| Power P1                                   | 65 W                                     |
| Operating Current                          | 0.63 A                                   |
| Weight                                     | 1.9 kg                                   |
| Dimensions L×H×W (mm)                      | 164×141×90                               |

### Pump capacity at stable vacuum 100 mbar



The graph illustrates the maximum potential of the Laboratory Vacuum pumps during filtration with standard Cellulose Nitrate membranes of different pore sizes. In example, the 6 I vacuum pump delivers enough air flow for three filtrations in parallel with 0.45 µm membranes.

# Characteristic set-up of a laboratory vacuum filtration



More information about vacuum filtration equipment is available at: www.sartorius-stedim.com/microbio – Colony Counting – Combisart Hardware Set-Ups

#### Ordering Information Microsart<sup>®</sup> maxi.vac Laboratory Vacuum Pump 22 I

| Order Number  | Mains | Delivery |
|---------------|-------|----------|
| 16694-2-50-22 | 230 V | 22 l/min |
| 16694-1-60-22 | 115 V | 22 l/min |

# Spare Parts Microsart® maxi.vac

| Order Number | Description  |  |
|--------------|--|--|
| 1EV0002      | Fine adjustment head incl. vacumeter                       |  |
| 1EH0002      | Sound absorber   |  |
| 1ED0055      | Repair part set incl.<br>membrane, sealing ring,<br>valves |  |

#### Ordering Information Microsart<sup>®</sup> mini.vac Laboratory Vacuum Pump 6 I

| Order Number  | Mains | Delivery |
|---------------|-------|----------|
| 16694-2-50-06 | 230 V | 6 l/min  |
| 16694-1-60-06 | 115 V | 6 l/min  |

# Spare Parts Microsart<sup>®</sup> mini.vac

| Order Number | Description  |
|--------------|--|
| 1EV0001      | Fine adjustment head incl. vacumeter                       |
| 1EH0001      | Sound absorber   |
| 1ED0054      | Repair part set incl.<br>membrane, sealing ring,<br>valves |
| 1EV0003      | Fine adjustment head incl. manometer                       |

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