

# D-LAB DIAPHRAGM VACUUM PUMP

## PERFORMANCE YOU CAN RELY ON



D-LAB membrane pumps with their chemically resistant Teflon® heads, diaphragms and Kalrez® valves, offer the chemical or pharmaceutical laboratory user a wide range of choice.

The one head, 100 mbar ultimate vacuum pumps are suitable for use with drying equipment or for replacing water-jet pumps, whilst the two head, 8 mbar ultimate vacuum pumps are suitable for rotary evaporation, gas transfer and a wide range of medium vacuum applications.



### Features and Benefits

- **100% lubricant free**, maintenance free and quiet.
- **Six different pumping capacities** and modular expansion – the D-LAB can be optimised for any application.
- All parts of the pump head in contact with gases being pumped are **resistant against aggressive substances** (PTFE, FFKM, PVDF).

### Applications

- Rotary evaporation.
- Gel drying.
- Vacuum desiccation.
- Vacuum filtration.
- Vacuum degassing.

### Pump Range

#### D-LAB

- D-LAB 10-100
- D-LAB 20-100
- D-LAB 34-100
- D-LAB 10-8
- D-LAB 20-8
- D-LAB 34-8

# Performance Curves

## D-LAB Diaphragm vacuum pump

### D-LAB



#### Pumping speed (air)

|              |                                                            |
|--------------|------------------------------------------------------------|
| 10-100, 10-8 | 0.6 m <sup>3</sup> h <sup>-1</sup> , 10 lmin <sup>-1</sup> |
| 20-100, 20-8 | 1.2 m <sup>3</sup> h <sup>-1</sup> , 20 lmin <sup>-1</sup> |
| 34-100, 34-8 | 2.0 m <sup>3</sup> h <sup>-1</sup> , 34 lmin <sup>-1</sup> |

#### Ultimate vacuum, 50 Hz (60 Hz)

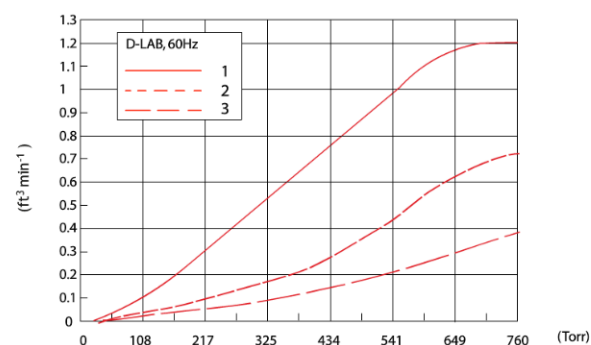
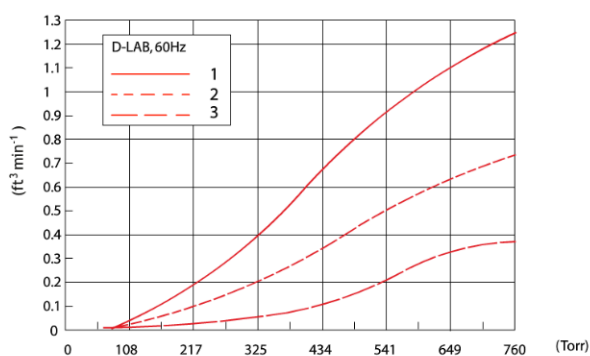
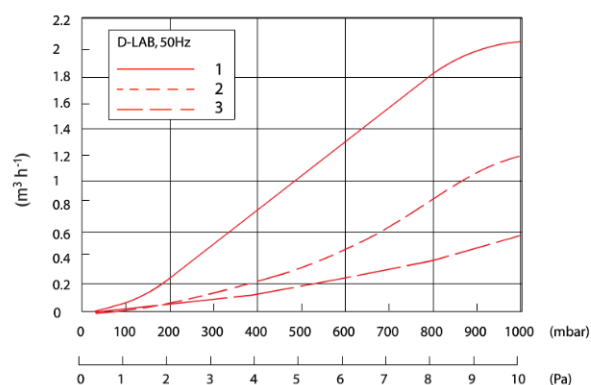
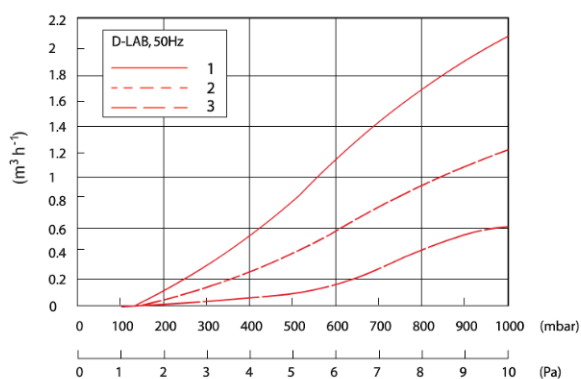
|                  |                 |
|------------------|-----------------|
| 10-100,          | 100 mbar        |
| 20-100, 34-100   | (75 mbar)       |
| 10-8, 20-8, 34-8 | 8 mbar (6 mbar) |

110 V pumps are supplied with USA plug; 220-240 V pumps are supplied with an IEC connector but mains cable with correct plug must be ordered separately.

### Ordering information

| Product description                                  | Order no: |
|------------------------------------------------------|-----------|
| D-LAB 10-100, diaphragm pump, 110 V, 60 Hz, 1-ph     | A48015941 |
| D-LAB 10-100, diaphragm pump, 220-240 V, 50 Hz, 1-ph | A48015960 |
| D-LAB 20-100, diaphragm pump, 110 V, 60 Hz, 1-ph     | A48017941 |
| D-LAB 20-100, diaphragm pump, 220-240 V, 50 Hz, 1-ph | A48017960 |
| D-LAB 34-100, diaphragm pump, 110 V, 60 Hz, 1-ph     | A48021941 |
| D-LAB 34-100, diaphragm pump, 220-240 V, 50 Hz, 1-ph | A48021960 |
| D-LAB 10-8, diaphragm pump, 110 V, 60 Hz, 1-ph       | A48016941 |
| D-LAB 10-8, diaphragm pump, 220-240 V, 50 Hz, 1-ph   | A48016960 |
| D-Lab 20-8, diaphragm pump, 110 V, 60 Hz, 1-ph       | A48018941 |
| D-Lab 20-8, diaphragm pump, 220-240 V, 50 Hz, 1-ph   | A48018960 |
| D-LAB 34-8, diaphragm pump, 110 V, 60 Hz, 1-ph       | A48022941 |
| D-LAB 34-8, diaphragm pump, 220-240 V, 50 Hz, 1-ph   | A48022960 |

### D-LAB Performance Curve



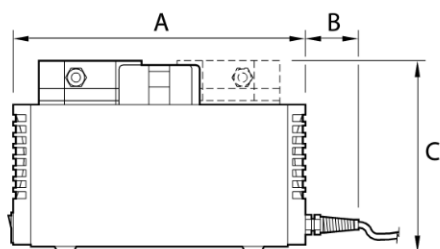
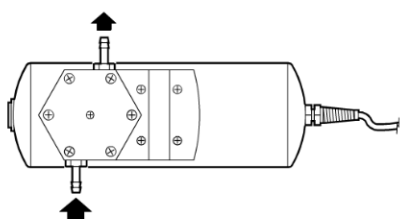
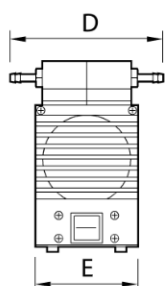
- 1 D-LAB 34-100
- 2 D-LAB 20-100
- 3 D-LAB 10-100

- 1 D-LAB 34-8
- 2 D-LAB 20-8
- 3 D-LAB 10-8

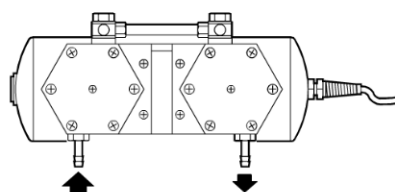
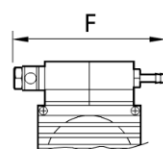
# Dimensions

## DLAB dimensions

One head pump



Two head pump



|        | A   | B  | C   | D   | E   | F   |
|--------|-----|----|-----|-----|-----|-----|
| 10-100 | 255 | 50 | 182 | 144 | 98  | -   |
| 20-100 | 268 | 60 | 204 | 157 | 110 | -   |
| 34-100 | 296 | 60 | 222 | 172 | 122 | -   |
| 10-8   | 288 | 53 | 184 | -   | 98  | 140 |
| 20-8   | 312 | 59 | 204 | -   | 110 | 153 |
| 34-8   | 341 | 62 | 222 | -   | 122 | 169 |

## Technical Data



|                             | Units                                               | D-LAB                                       |
|-----------------------------|-----------------------------------------------------|---------------------------------------------|
| Pumping speed (air)         |                                                     |                                             |
| 10-100, 10-8                | m <sup>3</sup> h <sup>-1</sup> / lmin <sup>-1</sup> | 0.6 / 10                                    |
| 20-100, 20-8                | m <sup>3</sup> h <sup>-1</sup> / lmin <sup>-1</sup> | 1.2 / 20                                    |
| 34-100, 34-8                | m <sup>3</sup> h <sup>-1</sup> / lmin <sup>-1</sup> | 2 / 34                                      |
| Ultimate vacuum             |                                                     |                                             |
| 10-100, 20-100, 34-100      | mbar, Hz / mbar, Hz                                 | 100, 50 / 75, 60                            |
| 10-8, 20-8, 34-8            | mbar, Hz / mbar, Hz                                 | 8, 50 / 6, 60                               |
| Inlet and outlet connection |                                                     | Riffler nozzle, suitable for 9 mm i.d. hose |
| Maximum inlet pressure      | bar                                                 | 1                                           |
| Motor power and current     |                                                     |                                             |
| 10-100, 110 V 60 Hz         | W / A                                               | 110 / 1.3                                   |
| 10-100, 220-240 V 50Hz      | W / A                                               | 100 / 0.6                                   |
| 20-100, 110 V 60 Hz         | W / A                                               | 145 / 1.9                                   |
| 20-100, 220-240 V 50Hz      | W / A                                               | 130 / 0.9                                   |
| 34-100, 110 V 60 Hz         | W / A                                               | 220 / 3.2                                   |
| 34-100, 220-240 V 50Hz      | W / A                                               | 180 / 1.4                                   |
| 10-8, 100 V 60 Hz           | W / A                                               | 110 / 1.3                                   |
| 10-8, 220-240 V 50Hz        | W / A                                               | 90 / 0.6                                    |
| 20-8, 110 V 60 Hz           | W / A                                               | 130 / 1.2                                   |
| 20-8, 220-240 V 50Hz        | W / A                                               | 120 / 0.9                                   |
| 34-8, 110 V 60 Hz           | W / A                                               | 250 / 3.2                                   |
| 34-8, 220-240 V 50 Hz       | W / A                                               | 200 / 1.5                                   |
| Enclosure rating            |                                                     | IP44                                        |
| Operating temperature       | °C                                                  | 5-40                                        |
| Weight                      |                                                     |                                             |
| 10-100                      | kg / lbs                                            | 5.8 / 12.8                                  |
| 20-100                      | kg / lbs                                            | 7.1 / 15.6                                  |
| 34-100                      | kg / lbs                                            | 10.3 / 22.7                                 |
| 10-8                        | kg / lbs                                            | 6.9 / 15.2                                  |
| 20-8                        | kg / lbs                                            | 9.3 / 20.5                                  |
| 34-8                        | kg / lbs                                            | 12.6 / 27.7                                 |

## Service, Spares and Accessories

### D-LAB Accessories

| Product description                      | Order no: |
|------------------------------------------|-----------|
| D-LAB Controller 230 V                   | A48015138 |
| D-LAB Controller 100/110 V               | A48015139 |
| D-LAB Baseplate 10+20-x                  | A48015134 |
| Baseplate for D-LAB pumps 34-100, 34-8   | A48021134 |
| D-LAB Separator                          | A48015136 |
| D-LAB Condenser                          | A48015137 |
| Gas Ballast for D-LAB pumps 10-100, 10-8 | A48015135 |
| Gas Ballast for D-LAB pumps 20+34-8      | A48017135 |

### Electrical Supply Cable

| Product description                                             | Order no: |
|-----------------------------------------------------------------|-----------|
| 2 m electrical supply cable for 1-ph pumps, UK, three-pin plug  | A50505000 |
| 2 m electrical supply cable for 1-ph pumps, North European plug | A50506000 |
| 2 m electrical supply cable for 1-ph pumps, no plug             | A50508000 |

### Service kits

| Product description          | Order no: |
|------------------------------|-----------|
| Service kit for D-LAB 10-100 | A48015815 |
| Service kit for D-LAB 20-100 | A48017815 |
| Service kit for D-LAB 34-100 | A48021815 |
| Service kit for D-LAB 10-8   | A48016815 |
| Service kit for D-LAB 20-8   | A48018815 |
| Service kit for D-LAB 34-8   | A48022815 |

### Service

Edwards products, spares and accessories are available from Edwards companies in Belgium, Brazil, China, France, Germany, Israel, Italy, Japan, Korea, Singapore, United Kingdom, U.S.A. and a worldwide network of distributors. The majority of these centres employ Service Engineers who have undergone comprehensive Edwards training courses. Order spare parts and accessories from your nearest Edwards company or distributor.

When you order, please state for each part required:

- Model and item number of your equipment.
- Serial number (if any).
- Item number and description of the part.