

# Edwards ES Series **Technical Specifications**

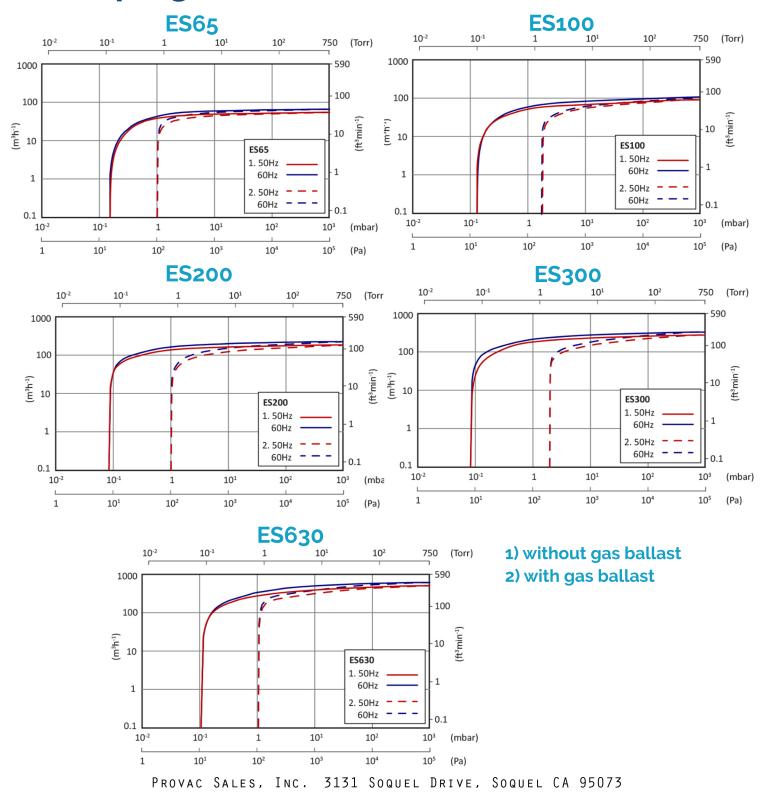
|  | units                                 | ES65           | ES100          | ES200         | ES300         | ES630         |  |
|--|---------------------------------------|----------------|----------------|---------------|---------------|---------------|--|
| Maximum Displacement 50Hz                            | m³h⁻¹/ cfm                            | 64/38          | 96/56          | 198/117       | 293/172       | 635/374       |  |
| Maximum Displacement 60Hz                            | m³h-¹/ cfm                            | 77/45          | 115/68         | 240/141       | 354/208       | 769/453       |  |
| Pumping Speed 50 Hz                                  | m³h-1 / cfm                           | 59/35          | 90/53          | 190/112       | 275/162       | 575/338       |  |
| Pumping Speed 60 Hz                                  | m³h-¹ / cfm                           | 70/41          | 105/62         | 225/132       | 320/188       | 674/397       |  |
| Ultimate vacuum (total pressure) no gas<br>ballast   | mbar / torr                           | 0.15/0.11      | 0.15/0.11      | 0.08/0.06     | 0.08/0.06     | 0.1/0.08      |  |
| Ultimate vacuum (total pressure) with gas<br>ballast | mbar / torr                           | 1.0/0.8        | 2.0/1.5        | 1.0/0.8       | 2.0/1.5       | 1.0/0.8       |  |
| Inlet Connection                                     |                                       | ISO40/1"BSP    | ISO63/2"BSP    | ISO63/2"BSP   | ISO63/2"BSP   | ISO100/3"BSP  |  |
| Outlet Connection                                    |                                       | ISO40/11/2"BSP | ISO40/11/2"BSP | ISO40/2"BSP   | ISO40/2"BSP   | ISO100/3"BSP  |  |
| Max permitted outlet pressure                        | bar gauge                             | 0.5            | 0.5            | 0.5           | 0.5           | 0.5           |  |
| Max water vapour pumping rate (50Hz)                 | kgh <sup>-1</sup> / lbh <sup>-1</sup> | 1.3/2.8        | 2.6/5.7        | 2.2/4.8       | 2.3/5.1       | 5.6/12.3      |  |
| Max water vapour pumping rate (60Hz)                 | kgh <sup>-1</sup> / lbh <sup>-1</sup> | 1.6/3.5        | 4.3/9.4        | 2.8/6.1       | 3/6.6         | 8.1/17.8      |  |
| Dimensions (L,W,H)                                   | mm                                    | 725.5*387*361  | 810*387*361    | 990*517*462   | 1103*517*462  | 1651*680*589  |  |
| Weight   | kg / Ib                               | 77/170         | 94/207         | 163/359       | 185/408       | 516/1138      |  |
| Motor Protection rating                              |                                       | IP55           | IP55           | IP55          | IP55          | IP55          |  |
| Motor Power 50Hz                                     | kW / hp                               | 1.5/2.0        | 2.3 / 3        | 4.5/6.0       | 6/8.0         | 12.5/16.7     |  |
| Motor Power 60Hz                                     | kW / hp                               | 1.8/2.4        | 3/4.0          | 5.8/7.7       | 7.5/10.0      | 15/20.1       |  |
| Noise level (50Hz)                                   | dB(A)                                 | 64             | 65             | 67            | 69            | 75            |  |
| Noise level (60Hz)                                   | dB(A)                                 | 66             | 67             | 69            | 71            | 77            |  |
| Oil Refill Capacity                                  | litre                                 | 4              | 4              | 5             | 5             | 15            |  |
| Recommended oil                                      |                                       | Ultragrade 20  | Ultragrade 20  | Ultragrade 20 | Ultragrade 20 | Ultragrade 20 |  |

|       | EH250 | EH500  | EH1200  | EH2600 | EH4200  |
|-------|-------|--------|---------|--------|---------|
| ES65  |       |        |         |        |         |
| ES100 |       |        |         |        |         |
| ES200 |       | Direct | Marinet |        |         |
| ES300 |       | Direct | Mount   |        |         |
| ES630 |       |        |         | Frame  | e mount |

Note: other combinations are available on request

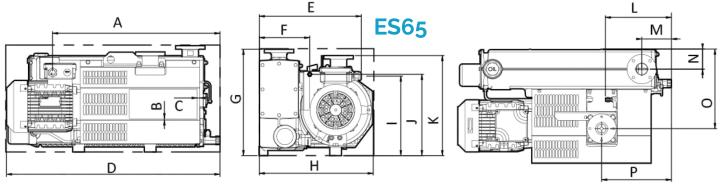


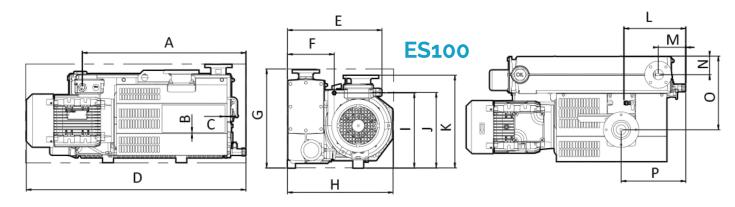
### Edwards ES Series Pumping Curves

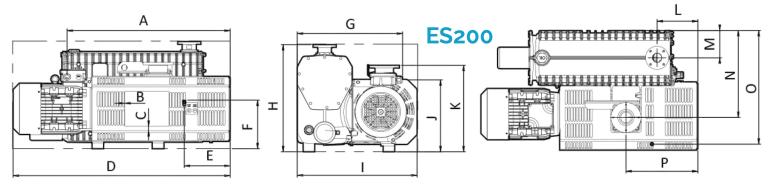




# Edwards ES Series Dimensions





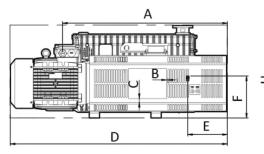


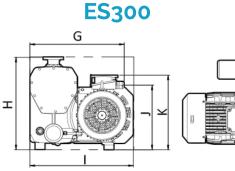
| mm<br>(inches) | А       | В      | С      | D       | E       | F      | G       | н       | T       | J       | К       | L      | М      | N       | 0       | Ρ       |
|----------------|---------|--------|--------|---------|---------|--------|---------|---------|---------|---------|---------|--------|--------|---------|---------|---------|
| ES65           | 568     | 3.8    | 8.6    | 725.5   | 346     | 171    | 361     | 387     | 270     | 276     | 340     | 224    | 101    | 68      | 270     | 237     |
|                | (22.36) | (0.15) | (0.34) | (28.56) | (13.62) | (6.73) | (14.21) | (15.24) | (10.63) | (10.86) | (13.39) | (8.82) | (3.97) | (2.68)  | (10.63) | (9.33)  |
| ES100          | 600.5   | 3.8    | 8.6    | 810     | 353     | 171    | 361     | 387     | 275     | 293     | 340     | 226    | 101    | 68      | 270     | 237     |
|                | (23.64) | (0.15) | (0.34) | (31.88) | (13.89) | (6.73) | (14.21) | (15.24) | (10.83) | (11.53) | (13.39) | (8.9)  | (3.97) | (2.68)  | (10.63) | (9.33)  |
| ES200          | 714     | 2.8    | 19     | 990     | 201     | 210    | 471     | 462     | 517     | 323     | 375     | 176    | 118    | 375     | 490     | 310     |
|                | (28.11) | (0.11) | (0.75) | (38.97) | (7.91)  | (8.26) | (18.34) | (18.19) | (20.35) | (12.71) | (14.76) | (6.92) | (4.65) | (14.76) | (19.29) | (12.20) |

#### Provac Sales, Inc. 3131 Soquel Drive, Soquel CA 95073

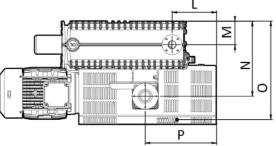


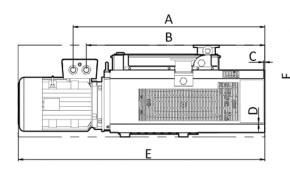
### Edwards ES Series Dimensions cont.

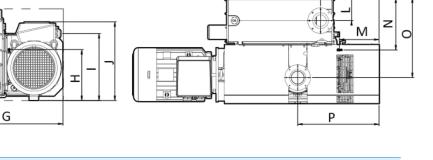




ES630







| mm<br>(inc | n<br>hes) | А               | В               | С            | D               | E               | F              | G              | Н              | I.             | J              | К                | L             | М                | Ν              | 0              | Р              |
|------------|-----------|-----------------|-----------------|--------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|------------------|---------------|------------------|----------------|----------------|----------------|
| ES         | 300       | 822<br>(32.36)  | 7.4<br>(0.29)   | 19<br>(0.75) | 1103<br>(43.42) | 198<br>(7.8)    | 210<br>(8.27)  | 471<br>(18.54) | 462<br>(18.19) | 517<br>(20.35) | 323<br>(12.71) | 373<br>(14.69)   | 222<br>(8.74) | 118<br>(4.65)    | 375<br>(14.76) | 492<br>(19.37) | 356<br>(14.02) |
| ES         | 530       | 1234<br>(48.58) | 1149<br>(45.24) | 9<br>(0.35)  | 8<br>(0.31)     | 1651<br>(65.00) | 589<br>(23.18) | 680<br>(26.77) | 330<br>(12.99) | 432<br>(17.00) | 507<br>(19.96) | 376.5<br>(14.82) | 145<br>(5.70) | 256.5<br>(10.09) | 334<br>(13.15) | 512<br>(20.16) | 524<br>(20.63) |



Provac Sales, Inc. 3131 Soquel Drive, Soquel CA 95073



## Edwards ES Series Features & Benefits

- low cost of ownership
- excellent water vapor handling
- environmentally friendly minimal oil emission
- quiet operation with vibration isolators
- optimized oil return system
- ease of integration built-in ISO & BSP connections
- easy to maintain easy oil & filter changes
- flexibility & simplicity
- refined internal mechanism
- efficient air flow management system
- direct drive technology

# **Applications**

- load locks web & roll coating pptical, opthalmic & display coating
- $\cdot$  surface coating  $\cdot$  heat treatment  $\cdot$  tempering  $\cdot$  quenching  $\cdot$  annealing
- vacuum brazing
  e-beam & plasma welding
  transformer drying
- automotive drying & filling systems
  refrigeration & air conditioning
- battery & capacitor drying house vacuum sterilisation plasma cleaning/sterilizing • oil/resin degassing • food processing • leak detection • cryo interspace evacuation • vacuum insulated panels & glass • cylinder filling