

Welch®
Laboratory Vacuum Catalog
2005-2006

Standard Duty Dry Vacuum Pumps (Oil-Free)
Catalog Pages 20 & 21

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WOB-L® Piston Dry Vacuum Pumps¹

Compact, Economical
Oil-Free Pumps

Suited For:

- Vacuum Drying
- Desiccating
- Aspiration
- Degassing
- Chamber Roughing



2511B-01



2522B-01/2534B-01



2546B-01



2567B-50/2561B-50

Specifications

Welch Model	2511	2522	2534	2546	2561	2567	2581
Free Air Displacement							
CFM (L/min) @ 60Hz	0.39(11)	0.76(22)	1.2(34)	1.6(45)	2.1(60)	3.5(100)	3.5(100)
m ³ /hr (L/min) @ 50Hz	0.55(9.2)	1.1(18)	1.7(28)	2.3(38)	3.0(50)	4.9(83)	4.9(83)
Ultimate Pressure, Torr (mbar)	219(292)	100(133)	70(93)	60(80)	5(6.7)	60(80)	5(6.7)
Max Pressure PSIG (pascal)	33(3.3 x 10 ⁵)	100(10 ⁶)	50(5 x 10 ⁵)	100(10 ⁶)	-----	-----	-----
Maximum Vacuum, in. Hg	21.3	26	27.2	27.6	29.8	27.6	29.8
Motor Horsepower (watts)	1/30(25)	1/8(93)	1/8(93)	1/4(190)	1/3(250)	1/3(250)	1/3(250)
Tubing Needed, I.D. in. (mm)	3/16(5)	1/4(7)	1/4(7)	1/4(7)	3/8(10)	3/8(10)	3/8(10)
Intake/Exhaust Thread NPT	3/16 in. Hose	1/4	1/4	1/4	1/4	1/4	1/4
Weight (lbs.)	5	11.7	11.7	13.8	16.5	16.5	24.5
Overall Dimensions							
L in. (cm)	7.6(19.4)	8.1(20.6)	8.1(20.6)	10(25.4)	17.3(43.9)	15.0(38.1)	17(43.2)
W in. (cm)	4.5(11.4)	8.8(22.4)	8.8(22.4)	7.5(19.1)	6.5(16.5)	10(25.4)	7.5(19.1)
H in. (cm)	7.5(19.1)	10(25.4)	10(25.4)	9(22.9)	10.5(26.7)	10(25.4)	12(30.5)
Ship Weight, lbs (kg)	6(2.7)	17(7.7)	17(7.7)	17(7.7)	24(10.9)	24(10.9)	32(14.5)
Shipping Carton Dimensions							
L x W x H in. (cm)	13 x 9 x 9.5 (33 x 22.9 x 24.1)	15 x 10.5 x 12 (38.1 x 26.7 x 30.5)	15 x 10.5 x 12 (38.1 x 26.7 x 30.5)	15 x 10.5 x 12 (38.1 x 26.7 x 30.5)	21.5 x 12.5 x 16 (54.6 x 31.8 x 40.6)	21.5 x 12.5 x 16 (54.6 x 31.8 x 40.6)	21.5 x 12.5 x 16 (54.6 x 31.8 x 40.6)

Ordering Information^{1,2}

Wired for 115V, 60Hz, 1 Ph with N. American 115V Plug	2511B-01 ³	2522B-01 ⁴	2534B-01 ⁴	2546B-01 ⁴	2561B-50	2567B-50	2581B-50
Wired for 230V, 60Hz, 1 Ph with N. American 230V Plug	-----	2522C-01 ⁴	2534C-01 ⁴	2546C-01 ⁴	-----	-----	-----
Wired for 230V, 50Hz, 1 Ph ² with Cont. Euro.(Schuko) Plug	2511C-02 ³	2522C-02 ⁴	2534C-02 ⁴	2546C-02 ⁴	2561C-50	2567C-50	2581C-50
Wired for 100V, 50/60Hz, 1 Ph with a plug	2511C-05 ³	2522C-05 ⁴	-----	-----	2561C-56	-----	2581C-56

Notes:

1. All models are recommended for pumping vapors of aqueous solutions including buffers but not for acidic, basic or organic vapors or gases.
2. 50Hz units supplied with CE marking.

Vacuum Pumps



2585B-50/2581B-50



2511B-75



2515B-75

Aspiration/Filtration Systems include 6Ft. of tubing and two hydrophobic filters

Aspiration/Filtration Systems

2585	2511	2515
7.1(201)	0.39(11)	1.2(34)
10(168)	0.55(9.2)	1.7(28)
60(80)	219(292)	70(93)
-----	33(3.3 x 10 ⁵)	-----
27.6	21.3	27.2
1/3(250)	1/30(25)	1/8(93)
3/8(10)	3/16(5)	1/4(7)
1/4	3/16 in. Hose	1/4
24.5	5.7	13.2
17(43.2)	11.0(28)	14.8(37.5)
7.5(19.1)	8.3(21)	8.3(21)
12(30.5)	10.0(25.5)	10.0(25.5)
32(14.5)	11.0(5)	14.8(6.7)
21.5 x 12.5 x 16	21.5 x 12.5 x 16	21.5 x 12.5 x 16
(54.6 x 31.8 x 40.6)	(54.6 x 31.8 x 40.6)	(54.6 x 31.8 x 40.6)

2585B-50	2511B-75	2515B-75
-----	-----	-----
2585C-50	2511C-75	2515C-75
-----	2511C-76	2515C-76

- Model 2511 can deliver 33 PSIG (3.3 x 10⁵ pascal).
- Models 2522, 2534 and 2546 come with vacuum (and pressure) regulator, vacuum (and pressure) gauge, silencer and water trap. Models 2522 and 2546 can deliver 100 PSIG (10⁶ pascal). Model 2534 can deliver 50 PSIG (5 x 10⁵ pascal).

Accessories

Vacuum Hose

Thick walled hose for vacuum or pressure applications. Hose clamp information available on page 29.



Pump Model	Cat. No.
2522, 2534, 2545, 2561, 2565, 2581, 2585	331030-5
2511	331020-5

Exhaust Silencer

Exhaust silencers are installed in the exhaust port of the pump to reduce pump noise.



1412B



1412C



1412D/1412E

Pump Model	Cat. No.
2565, 2585	1412C
2561	1412D
2581	1412E
2012, 2022, 2030, 2015, 2017	1412B

Replacement Jars

Plastic (1415C) or glass jar (1415B) to replace the collection jar included with the pumps.



1415B

1415C

Spare receiver kit (1475K-20) includes a 1.2 L autoclaveable jar, 6Ft. of tubing and two hydrophobic filters.



1475K-20

Pump Model	Cat. No.
2522, 2546, 2534	1415C
2561, 2565, 2581, 2585, 202501, 202601, 202701	1415B
2511B-75, 2511C-75, 2515B-75, 2515C-75	1475K-20

Particulate, Hydrophobic In-line Filters

The filters are an economical solution to protect your piston vacuum pump from fine particulates and aerosols to 0.2 microns in diameter.



1475K-21

Made of Polypropylene housing, cat. no. 1475K-21 fits 1/4" to 3/8" and cat. no. 1475K-23 fits 1/4" I.D. hose.



1475K-22

Made of SBS resin housing, model 1475K-22 fits 3/8" to 7/16" I.D. hose.

Pump Model	Cat. No.	Pore Size
2511, 2515, 2522, 2534, 2546	1475K-21	0.8 micron
2561, 2581, 2562, 2567	1475K-22	0.8 micron
2562, 2567	1475K-23	0.2 micron



1475K-23