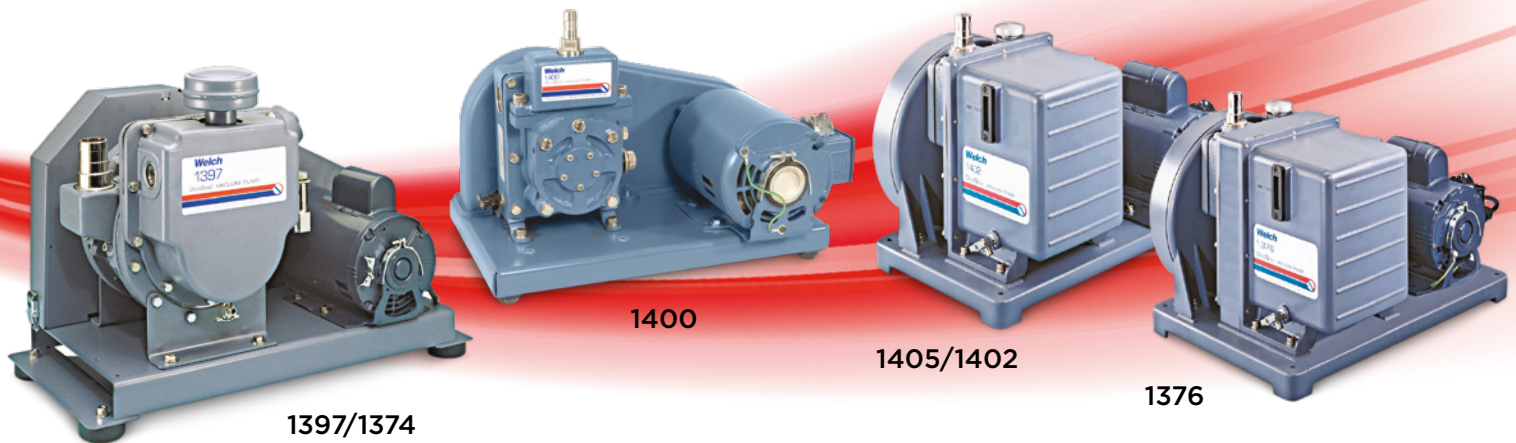


Welch DuoSEAL®

Known world-wide for ruggedness & durability



DuoSEAL vacuum pumps are two- and one-stage, oil-sealed, belt-driven rotary vane vacuum pumps.

There are nine models of DuoSEAL available, with free air displacement from 0.9 cfm to 23 cfm. Ultimate vacuum pressure to 0.0001 Torr. The pumps provide high pumping speed to the ultimate vacuum pressure.

All DuoSEAL vacuum pumps use UL listed motors (some CSA) and 1PH have built in thermal protection. Depending on model, motor options include 1 Ph TEFC, 3 Ph TEFC, and 1 Ph explosion proof motors.

- ✓ ACHIEVE HIGH VACUUM
- ✓ LOW RPM, COOL RUNNING
- ✓ LEGENDARY LONGEVITY & EXCEPTIONAL DURABILITY
- ✓ LARGE OIL RESERVOIR
- ✓ CAST IRON VANES
- ✓ HIGH OIL FEED PORT
- ✓ EASY TO SERVICE SHAFT SEAL
- ✓ FAST DELIVERY
- ✓ UPGRADE TO CHEMSTAR® (3 models)

DuoSEAL vacuum pumps can be used for freeze drying, vacuum ovens, glove boxes, schlenk lines, HVAC/refrigeration service, coaters, backing diffusion pumps, metallurgy/vacuum furnaces, lamp manufacture, space simulation, degassing, vessel/chamber evacuation and various industrial applications. DuoSEAL vacuum pumps prepared with perfluoropolyether (PFPE) for oxygen service are available. Contact your local Welch sales representative for details on PFPE prepared pumps and for selecting the correct vacuum pump and accessories for your application.

Depend on Welch to deliver the highest performance, most durable vacuum pumps

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WELCH

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SPECIFICATIONS

MODEL	1400	1405	1402	1376	1397	1374	1399	1380	CRR-1 ⁴
Free Air Displacement, CFM@60Hz, (lpm)	0.9 (25)	3.2 (90)	5.6 (160)	10.6 (300)	17.7 (500)	23 (600)	1.2 (35)	5.6 (160)	10.6 (300)
Ult. Vacuum Pressure, Torr ^{1,2}	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.015	0.015	0.030
Number of stages	<u>2</u>	2	2	2	2	2	1	1	1
Pump Speed @60Hz	580	525	525	525	400	510	750	535	525
Oil Capacity, qts	0.62	2.25	2.25	2.5	1.25	1.25	0.5	3.7	2.5
Intake/Exhaust Female Thread	3/4-20	1-20	1-20	1-20	1.75-20	1.75-20	3/4-20	1-20	1" NPT
Tubing Needed, I.D., in.	7/16	7/16	13/16	13/16	1-5/8	1-5/8	7/16	13/16	-
Weight, lbs.	58	112	112	156	205	220	51	91	122
Ship Wt, Lbs	70	132	132	180	213	215	62	116	136
Overall Dimensions LxWxH, in.	17.8 x 9 x 12.6	20 x 12 x 15	20 x 12 x 15	20 x 14 x 15.4	26 x 13.7 x 18.8	26 x 13.7 x 18.8	17 x 9 x 10	20 x 12 x 15	19.5 x 12.3 x 11.1

ORDERING INFORMATION

MODEL	1400	1405	1402	1376	1397	1374	1399	1380	CRR-1 ⁴
Wired 115V, 60Hz, 1Ph	1400B-01	1405B-01	1402B-01	1376B-01	1397B-01	1374B-01	1399B-01	1380B-01	-
Wired 230V, 60Hz, 1Ph	1400C-01	1405C-01	1402C-01	-	-	-	-	-	-
Wired 115V, 60Hz, Refrigeration Service, 3/4" flare	-	-	1402B-46	1376B-46	1397B-46 (see note 7)	-	-	-	-
208-230/460V; 60Hz, 3Ph ⁵	-	-	1402M-01	1376M-01	1397M-01	1374M-01	-	-	-
CHEMSTAR, wired 115V, 60Hz, 1PH ⁸	1400N-01	-	1402N-01	1376N-01	-	-	-	-	-
115V/208-230V, 60Hz, 1PH Explosion Proof ^{5,6}	1400W-01	1405W-01	1402W-01	-	-	-	-	-	-
Wired for 115V, 60Hz, 1Ph with N. American 115V Plug, CSA	1400B-01	1405B-80	1402B-80	-	-	-	1399B-80	-	-

Notes:

- Two-stage pumps should not be operated continuously at pressures above 10 Torr. Ultimate vacuum pressure specifications measured with trapped McCleod gauge.
- One-stage pumps should not be operated continuously at pressures above 50 Torr.
- All 115V and 230V single phase motors include thermal overload protection and are UL listed, some CSA.
- The CAPTURE pump has been specifically designed for refrigerant recovery and recycling systems requiring chiller evacuation to 29.9 in., with subsequent boosting of refrigerant vapor to a holding tank to 30 psig.
- Conduit wiring installation required. No cord, plug or switch provided. Installation should be performed by a qualified electrician.
- Explosion proof motor versions of 1400W-01, 1405W-01, 1402W-01 for Class I, Groups C&D and Class II, Groups E, F & G.
- Intake fitting is 1-1/2" NPT Female.
- ChemStar vacuum pumps are built to withstand corrosive chemical vapor environments - durable performance over the long haul. Includes Welch Gold Vacuum pump oil, a synthetic hydrocarbon oil designed with no aromatic compounds or sulfur which accelerate varnishing, sludging, and carbon build-up when pumps are used to pump corrosives. PTFE coated oil case. Nitrogen purge line connects on oil case, can be used to degas and cool oil.