

Rocking Piston Type Dry Vacuum Pumps

DOP Series

DOP-40D DOP-80S DOP-80SP DOP-120SY

Features

Rocking type piston vacuum pump creates vacuum by reciprocating motion of cup packing inside the cylinder. Pressurized type is available for DOP-80S which can be used as a small compressor. (DOP-80SP)

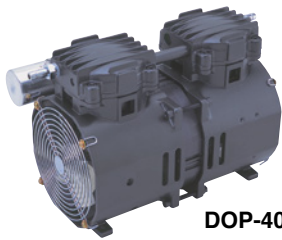
Applications

(Vacuum)

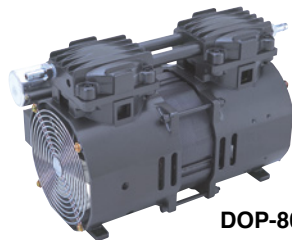
- Vacuum chuck, vacuum tweezers
- Absorption and transfer of automatic machines
- Vacuum packing printing machines
- Chip moulder
- Medical equipments
- Oxygen generator

(Pressure)

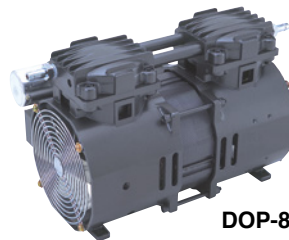
- Pressure source for automatic machines
- Air pressure unit
- Printing machine
- Otorhinolaryngology, dental unit
- Air pressure meter



DOP-40D



DOP-80S



DOP-80SP



DOP-120SY

Specifications

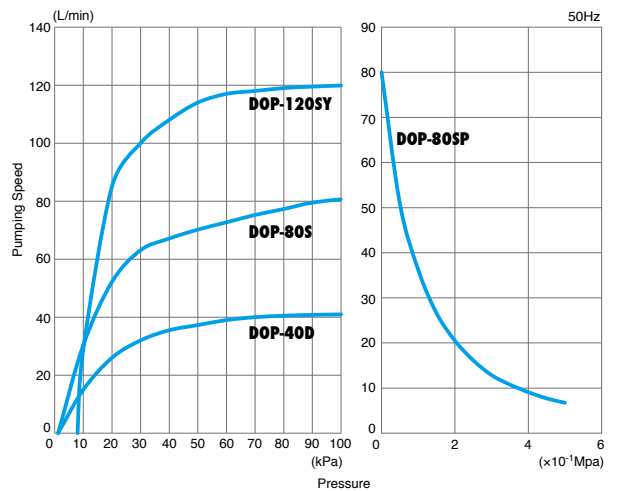
Model	Unit	DOP-40D		DOP-80S		DOP-80SP		DOP-120SY	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Actual pumping speed	L/min	40	44	80	88	80	84	120	140
Ultimate pressure	Pa	1.2 × 10 ³		5.33 × 10 ³		Only for pressure		8.0 × 10 ³	
Maximum pressure	MPa	-		-		0.5		-	
Motor		Single phase, 220V, 210W, 4P, Capacitor run		Single phase, 220V, 210W, 4P, Capacitor run		Single phase, 220V, 300W, 4P, Capacitor run		Three phase, 200 – 220V, 120W, 4P	
Full load current	A	1.7	1.9	1.7	1.9	2.4	2.5	1.4/1.6 (200/220V)	1.4 (200V)
Weight	kg	7.0		7.0		9.0		6.4	
Inlet, outlet pipe diameter	mm	O.D. dia.9 × I.D. dia.5 (Rc 1/4)		O.D. dia.9 × I.D. dia.5 (Rc 1/4)		O.D. dia.9 × I.D. dia.5 (Rc 1/4)		(Rc1/4)	
Ambient temperature	°C	7 – 40		7 – 40		7 – 40		7-40	
Overall dimensions	mm	160(W) × 270(L) × 179(H)		160(W) × 270(L) × 179(H)		168.5(W) × 288(L) × 181(H)		139.5(W) × 255(L) × 167(H)	

Corresponding voltage and Certificate

Model	Voltage	Order Code	CE Marked	TUV Marked	cTUVus Marked	cTUV Marked
DOP-40D	Single phase, 100V	A42340000000	-	-	-	-
	Single phase, 115V	A42340000001	-	-	-	-
	Single phase, 200V	A42340000002	-	-	-	-
	Single phase, 220V	A42340000003	-	-	-	-
DOP-80S	Single phase, 100V	A43268000000	-	-	-	-
	Single phase, 115V	A42360000001	-	-	-	-
	Single phase, 200V	A42360000002	-	-	-	-
	Single phase, 220V	A42360000003	-	-	-	-
DOP-80SP	Single phase, 100V	A42370000003	-	-	-	-
	Single phase, 200V	A42372000000	-	-	-	-
	Single phase, 220V	A42372200000	-	-	-	-
DOP-120SY	Three phase, 200–220V	A42811200000	✓	✓	-	✓

- : Not Available, ✓ : Available

Pumping speed curves



* Further details can be found on our website. Outside drawing appears in Page 46 – 47.

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DOP Series

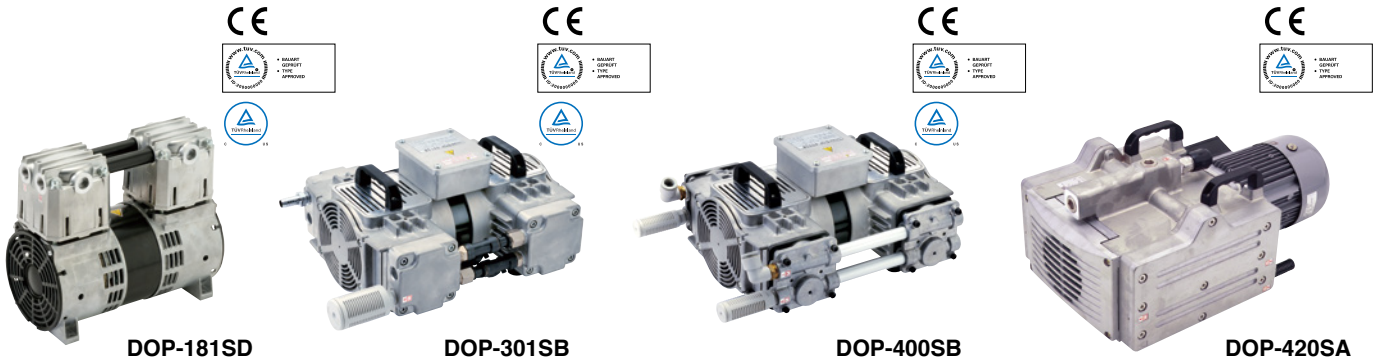
DOP-181S DOP-301SB DOP-400SB DOP-420SA

Features

Rocking type piston vacuum pump creates vacuum by reciprocating motion of cup packing inside the cylinder. Bigger volume of pumping speed with increased number of pump heads.

Applications

- Vacuum chuck, vacuum tweezers
- Semiconductor industry (Handler, Mounter)
- FPD industry (Bonder)
- Printing machine
- Injection molding
- Adsorption and transfer



Specifications

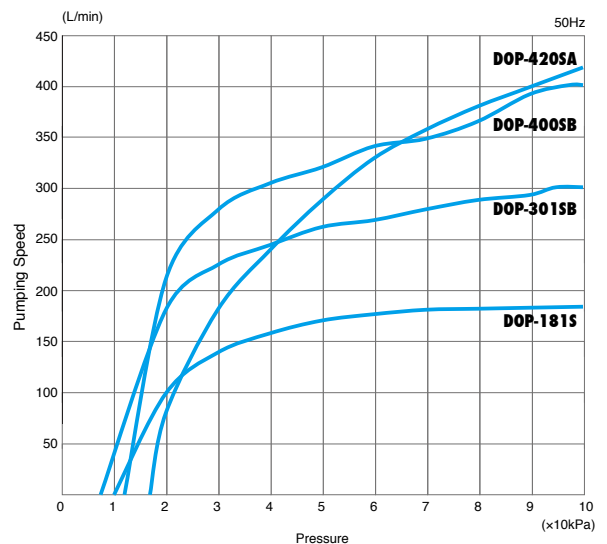
Model	Unit	DOP-181SD		DOP-301SB		DOP-400SB		DOP-420SA	
		50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
Actual pumping speed	L/min	180	200	300	330	400	440	420	460
Ultimate pressure	Pa	10.0 × 10 ³		8.0 × 10 ³		12.0 × 10 ³		17.3 × 10 ³	
Motor		Single phase, 220V, 400W, 4P		Three phase, 200 – 230V, 400W, 4P		Three phase, 200-220V, 400W, 4P		Three phase, 200V, 550W, 4P	
Full load current	A	2.9	2.6	2.1	2.5	2.4	2.8	3.5	3.1
Weight	kg	12.0		20.0		23		33.0	
Inlet, outlet pipe diameter	mm	(Rc 3/8)		O.D. dia.16 × I.D. dia.12 (Rc 1/2)		Application tube outer diameter Φ 16		O.D. dia.26 × I.D. dia.20 (Rc 3/4)	
Ambient temperature	°C	7 – 40		0 – 40		0 – 40		0 – 40	
Overall dimensions	mm	162(W) × 266(L) × 235(H)		315(W) × 443(L) × 231(H)		316(W) × 434(L) × 231(H)		310(W) × 523(L) × 253(H)	

Corresponding voltage and Certificate

Model	Voltage	Order Code	CE Marked	TUV Marked	cTUVus Marked
DOP-181SA	Single phase, 100V	A42002310002	✓	✓	✓
DOP-181SB	Single phase, 115V	A42002320001	✓	✓	✓
DOP-181SC	Single phase, 200V	A42002330002	✓	✓	✓
DOP-181SD	Single phase, 220V	A42002340002	✓	✓	✓
DOP-181SE	Three phase, 200—220V	A42002350002	✓	✓	✓
DOP-301SB	Three phase, 200—230V	A420D0000001	✓	✓	✓
DOP-400SB	Three phase, 200—220V	A420B0000001	✓	✓	✓
DOP-420SA	Three phase, 200V	A42001600000	✓	✓	—

— : Not Available, ✓ : Available

Pumping speed curves



* Further details can be found on our website. Outside drawing appears in Page 47.