

View of the pump

Legend (cf. figure *View of the pump*)

N°	Description	DS 102	DS202	DS302	DS402	DS602
1	Electric motor	SR03700702	SR03700702	SR03700702	SR03700703	SR03700703
1A	Electric motor 370-450W	SR03700865	SR03700865	SR03700865		
1B	Three phase electric motor	SR03700922	SR03700922	SR03700922	SR03700704	SR03700704
2	Rubber foot					
3	Screw					
4	Screw					
5	Screw					
7	Spacer					
8	Motor support					
9	Handle					
10	Screw					
11	Right sideplate					
12	Board					
14	Screw					
15	Support plate					
16	Cylindrical pin	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
17	Screw					
18	Rubber crown	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
19	Half-joint with fan					
20	Half-joint (pump side)					
21	Oil-seal ring	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
22	Special screw					
23	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
24	Gas Ballast Valve knob	SR03700219	SR03700219	SR03700219	SR03700219	SR03700219
25	Half-plate					
26	Inlet screen	SR03700237	SR03700237	SR03700237	SR03700237	SR03700237
27	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
28	Suction flange					
29	Anti-suckback shutter	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
30	Piston					
31	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
32	Casing gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
33	Inner plate	SR03700260	SR03700260	SR03700260	SR03700362	SR03700362
34	Pump support					
35	Anti-wear bushing				SR03700370	SR03700370
36	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
37	Kei motor side	SR8999980101	SR8999980101	SR8999980101	SR8999980301	SR8999980301
38	First stage vane	(1)	(2)	(2)	(3)	(3)
39	First stage rotor	SR03700273	SR03700319	SR03700319	SR03700371	SR03700371
40	Spring	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
41	Tongue	SR8999980001	SR8999980001	SR8999980001	SR8999980401	SR8999980401
42	Second stage vane	(1)	(2)	(2)	(3)	(3)
43	Second stage rotor	SR03700269	SR03700269	SR03700269	SR03700367	SR03700367
44	Tie-rod	SR03700209	SR03700308	SR03700308	SR03700335	SR03700335
45	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
46	Bracket					
47	Screw					
49	Valve cover plate					
50	Valve spring	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)

N°	Description	DS 102	DS202	DS302	DS402	DS602
51	Valve gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
52	First stage stator	SR03700261	SR03700316	SR03700495	SR03700363	SR03700419
53	Middle plate	SR03700262	SR03700262	SR03700262	SR03700421	SR03700421
56	GasBallast Valve shutter	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
57	GasBallast Valve spring	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
58	Second stage stator	SR03700321	SR03700321	SR03700321	SR03700364	SR03700364
59	Oil pump joint	SR03700280	SR03700280	SR03700280	SR03700390	SR03700390
60	Special screw					
61	End plate	SR03700285	SR03700285	SR03700285	SR03700391	SR03700391
62	Tongue					
63	Washer					
64	Nut					
69A	External oil pump gear	SR03700281	SR03700281	SR03700281	SR03700281	SR03700281
69B	Internal oil pump gear	SR03700277	SR03700277	SR03700277	SR03700277	SR03700277
70	Oil pump cover					
71	Screw					
73	Plate					
74	Filter					
75	Casing					
76	Exhaust flange					
77	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
78	Oil fill plug	03.701218	03.701218	03.701218	03.701218	03.701218
79	Oil drain plug	SR03700256	SR03700256	SR03700256	SR03700256	SR03700256
80	Oil drain plug gasket	SR03700256	SR03700256	SR03700256	SR03700256	SR03700256
81	Left sideplate					
83	Spring					
84	Filter					
85	Flange					
86	Sight glass	03.701326	03.701326	03.701326	03.701326	03.701326
87	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
99	Special screw					
100	Piston					
101	Arm					
102	Spring	(1)	(2)	(2)	(3)	(3)
103	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
104	OR gasket	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
105	Sleeve					
106	Spring	(1)	(2)	(2)	(3)	(3)
107	Ring	(4) - (1)	(4) - (2)	(4) - (2)	(5) - (3)	(5) - (3)
108	Arm					
109	Insert					
110	Special washer					
111	Screw					

NOTES

- (1) Part of DS 102 Major Maintenance Kit (P/N 9499380)
- (2) Part of DS 202-302 Major Maintenance Kit (P/N9499381)
- (3) Part of DS 402-602 Major Maintenance Kit (P/N 9499382)
- (4) Part of DS 102-202-302 Minor Maintenance Kit (P/N 9499370)
- (5) Part of DS 402-602 Minor Maintenance Kit (P/N 9499371)

TECHNICAL DATA

The following table lists the main technical data of the DS102 1Ph, DS202 1Ph, DS302 1Ph, DS402 1Ph, DS402 3Ph, DS602 1Ph and DS602 3Ph pumps.

TECHNICAL DATA	Hz	UNITS	DS102	DS202	DS302	DS402	DS602
FREE AIR DISPLACEMENT	60	l/min (cfm)	114 (4)	192 (6,8)	285 (10)	410 (14,5)	605 (21,4)
	50	l/min (m ³ /h)	95 (5,7)	160 (9,6)	237 (14,2)	342 (20,5)	540 (30,2)
PUMPING SPEED *	60	cfm	3,5	5,8	8,2	12,3	18,3
	50	m ³ /h	5	8,3	11,6	17,4	26
ULTIMATE PARTIAL PRESSURE *		mbar	10 ⁻⁴	10 ⁻⁴	10 ⁻⁴	10 ⁻⁴	10 ⁻⁴
ULTIMATE TOTAL PRESSURE *		mbar	2·10 ⁻³	2·10 ⁻³	2·10 ⁻³	2·10 ⁻³	2·10 ⁻³
ULTIMATE TOTAL PRESSURE WITH GAS BALLAST *		mbar	2·10 ⁻²	2·10 ⁻²	2·10 ⁻²	1·10 ⁻²	1·10 ⁻²
WATER VAPOR TOLERANCE		mbar	15	15	20	30	30
WATER VAPOR CAPACITY		g/h	60	100	160	350	550
OIL CAPACITY min/max		l	0,3/0,5	0,4/0,6	0,4/0,6	0,6/1	0,6/1
MOTOR RATING 1ph	50/60	kW	0,45/0,55	0,45/0,55	0,45/0,55	0,75/0,90	0,75/0,90
MOTOR RATING 3ph	50/60	kW				0,75/0,90	0,75/0,90
NOMINAL ROTATION SPEED	50	rpm	1500	1500	1500	1500	1500
	60	rpm	1800	1800	1800	1800	1800
OIL TEMPERATURE (pump operating) **		°C	50	50	52	70	72
		°F	122	122	126	158	162
Installation category	II						
Pollution degree	2						
OPERATING TEMPERATURE RANGE		°C	12 - 40	12 - 40	12 - 40	12 - 40	12 - 40
WEIGHT		Kg	22	24	24	36	36
		lb	48	53	53	79	79
INLET FLANGE		DN	25KF	25KF	25KF	25KF	25KF
EXHAUST FLANGE		DN	25KF	25KF	25KF	25KF	25KF
Dimensions (cf. also next table):							
- length, 1ph		mm	454	491	491	530	530
- width		mm	134	134	134	164	164
- height		mm	212	212	212	242	242
Input single phase versions ***							
Nominal voltages:	50	V	$\frac{100}{200-240}$	$\frac{100}{200-240}$	$\frac{100}{200-240}$	$\frac{100}{200-240}$	$\frac{100}{200-240}$
	60	V	$\frac{100-120}{200-230}$	$\frac{100-120}{200-230}$	$\frac{100-120}{200-230}$	$\frac{100-120}{200-230}$	$\frac{100-120}{200-230}$
Maximum currents:	50	A	$\frac{8,8}{5,4}$	$\frac{8,8}{5,4}$	$\frac{8,8}{5,4}$	$\frac{11,8}{6,2}$	$\frac{11,8}{6,2}$
	60	A	$\frac{8,8}{4,4}$	$\frac{8,8}{4,4}$	$\frac{8,8}{4,4}$	$\frac{12,8}{6,4}$	$\frac{1,8}{6,4}$

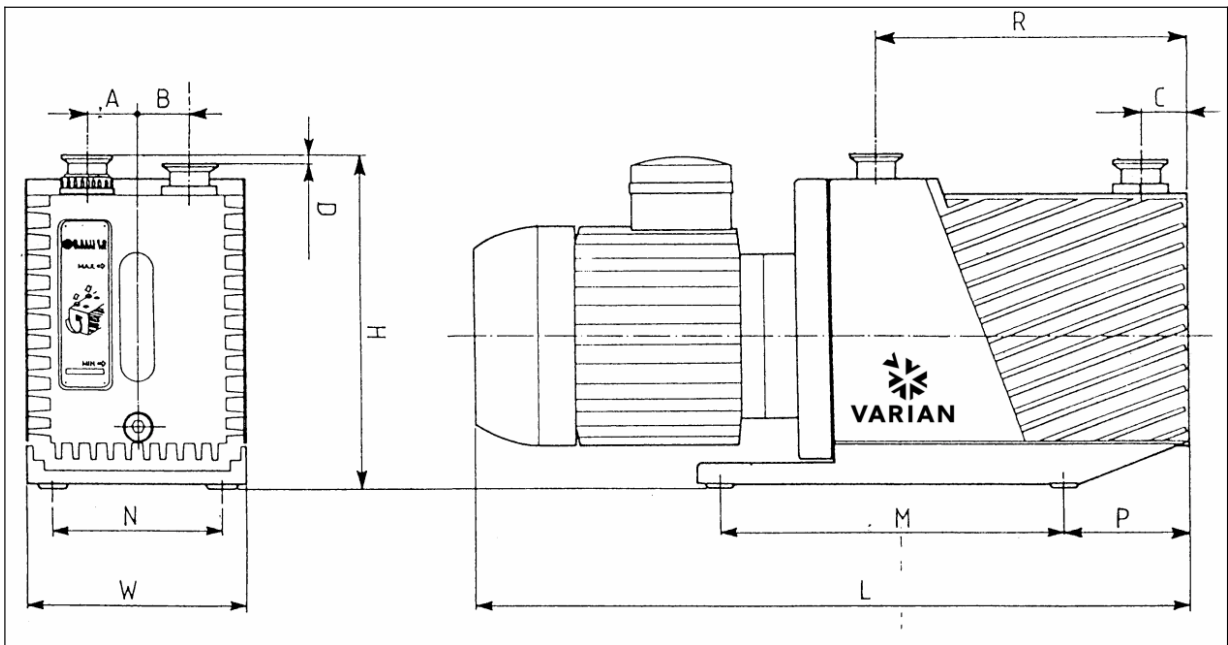
* According to PNEUROP 6602

** At ultimate total pressure, 20 °C (68 °F) room temperature

*** For more details about the electrical motors see pages from 17 to 20

DIMENSIONS

MODEL	UNITS	A	B	C	D	H	L	M	N	P	R	W
DS102	mm	30	30	35	3	212	430	250	100	105	165	132
	inch	1,18	1,18	1,38	0,12	8,3	16,9	9,8	3,9	4,1	6,5	5,2
DS202	mm	30	30	35	3	212	467	250	100	105	205	132
	inch	1,18	1,18	1,38	0,12	8,3	18,4	9,8	3,9	4,1	8,1	5,2
DS302	mm	30	30	35	3	212	467	250	100	105	205	132
	inch	1,18	1,18	1,38	0,12	8,3	18,4	9,8	3,9	4,1	8,1	5,2
DS402	mm	40	40	40	6	242	541	261	130	100	230	164
	inch	1,57	1,57	1,57	0,24	9,5	21,3	10,3	5,1	3,9	9,1	6,5
DS602	mm	40	40	40	6	242	541	261	130	100	230	164
	inch	1,57	1,57	1,57	0,24	9,5	21,3	10,3	5,1	3,9	9,1	6,5



Pump dimensions