

AW LIQUID RING VACUUM PUMPS

Technical information

Atlas Copco



TECHNICAL SPECIFICATIONS

AWS 180-5500

		AWS 180	AWS 280	AWS 360	AWS 450	AWS 600	AWS 800	AWS 1100	AWS 1300	AWS 1600	AWS 2500	AWS 3300	AWS 5500
Max. discharge pressure (normal operation)	bar(g)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	psi(g)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Particle handling (max. diameter)	micron	23	23	23	23	23	33	33	33	33	33	90	100
Sound level	dB(A)	82	82	82	82	82	82	82	82	82	82	82	82
Vibration	mm/s	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Process connections	mm	50	50	50	65	65	100	100	100	125	125	150	200
	inch	2	2	2	2 1/2	2 1/2	4	4	4	5	5	6	8
Shaft dimension	mm	35	35	35	35	35	50	50	50	70	70	100	120
Water connection	DN	20	20	20	20	20	25	25	25	32	32	40	50
	ANSI	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"	1"	1 1/4"	1 1/4"	1 1/2"	2"
Approximate block dimensions (W x D x H)	mm	638 x 275 x 645	741 x 275 x 645	795 x 275 x 645	807 x 330 x 745	885 x 330 x 745	975 x 430 x 985	1095 x 430 x 985	1131 x 430 x 985	1237 x 570 x 1245	1387 x 570 x 1245	1585 x 870 x 1360	1745 x 1000 x 1570
	inch	25 x 11 x 25	29 x 11 x 25	31 x 11 x 25	32 x 13 x 29	35 x 13 x 29	38 x 17 x 39	43 x 17 x 39	45 x 17 x 39	49 x 22 x 49	55 x 22 x 49	62 x 34 x 54	69 x 39 x 62
Dry weight (block)	kg	141	199	208	299	311	580	650	682	1166	1324	2120	2285
	lbs	311	439	456	659	686	1279	1433	682	1504	2919	4674	5038

50 Hz

Nominal capacity	m ³ /h	170	250	325	440	600	725	1100	1200	1500	2460	3000	5400
Speed	rpm	1450	1450	1450	1450	1450	980	980	980	740	740	590	590
Ultimate pressure	mbar(a)	30	30	30	30	30	30	30	30	30	30	30	30
Seal water flow @ 400 mbar(a)	m ³ /h	0.5	1	1	1	1	1.4	1.7	2.1	2.5	3.4	5.8	9.5
Nominal installed motor power	kW	5.5	7.5	11	15	18.5	22	37	37	45	75	75	132

60 Hz

Nominal capacity	cfm	118	182	224	309	406	515	736	824	1059	1735	2060	3461
Speed	rpm	1750	1750	1750	1750	1750	1150	1150	1150	880	880	710	660
Ultimate pressure	torr	25	25	25	25	25	25	25	25	25	25	25	25
Seal water flow @ 350 torr(a)	gpm	2.6	5.3	5.3	5.3	5.3	7.5	9	11	13	18	30	40
Nominal installed motor power	hp	10	15	20	25	30	40	60	60	75	125	125	250

MATERIALS OF CONSTRUCTION

AWS 180-5500

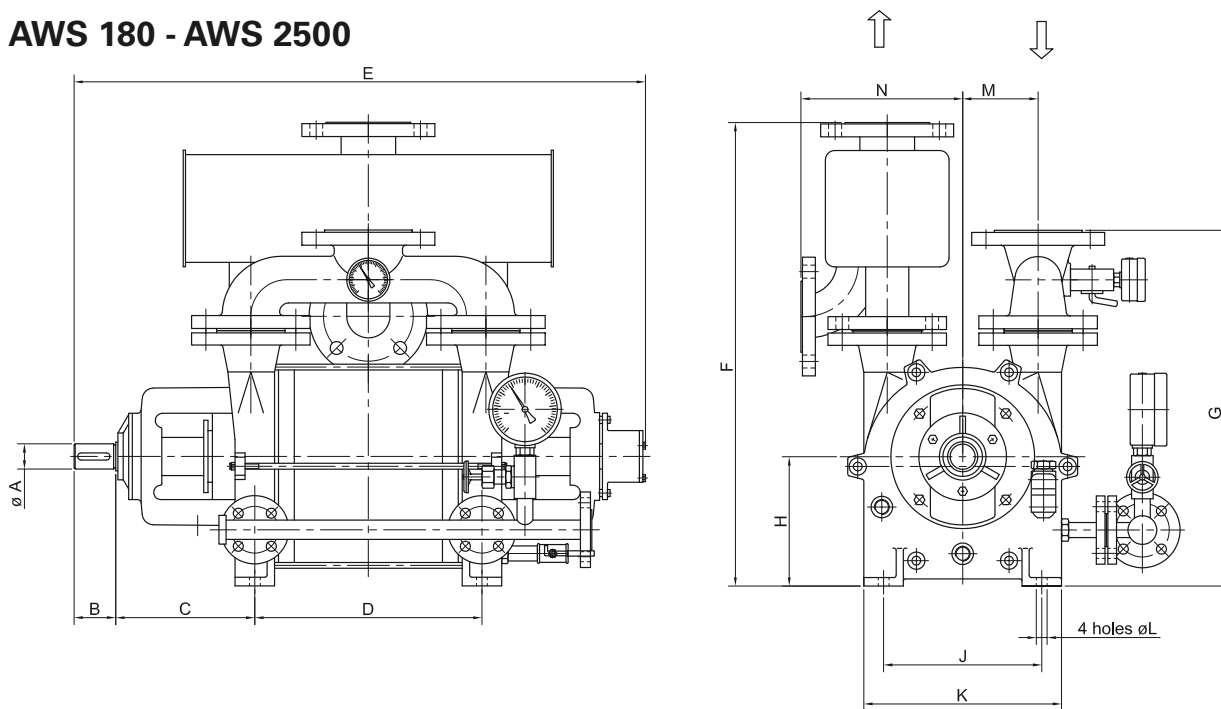
	Cast iron	Stainless steel	Stainless steel fitted
Casing	Cast iron	316 stainless steel	Cast iron
Body	Cast iron	316 stainless steel	Cast iron
Impeller	SG iron	316 stainless steel	316 stainless steel
Shaft	420 stainless steel	316 stainless steel	316 stainless steel
Mechanical seals	SiC/C/Viton	SiC/C/Viton	SiC/C/Viton

DIMENSIONS (MM/INCH)

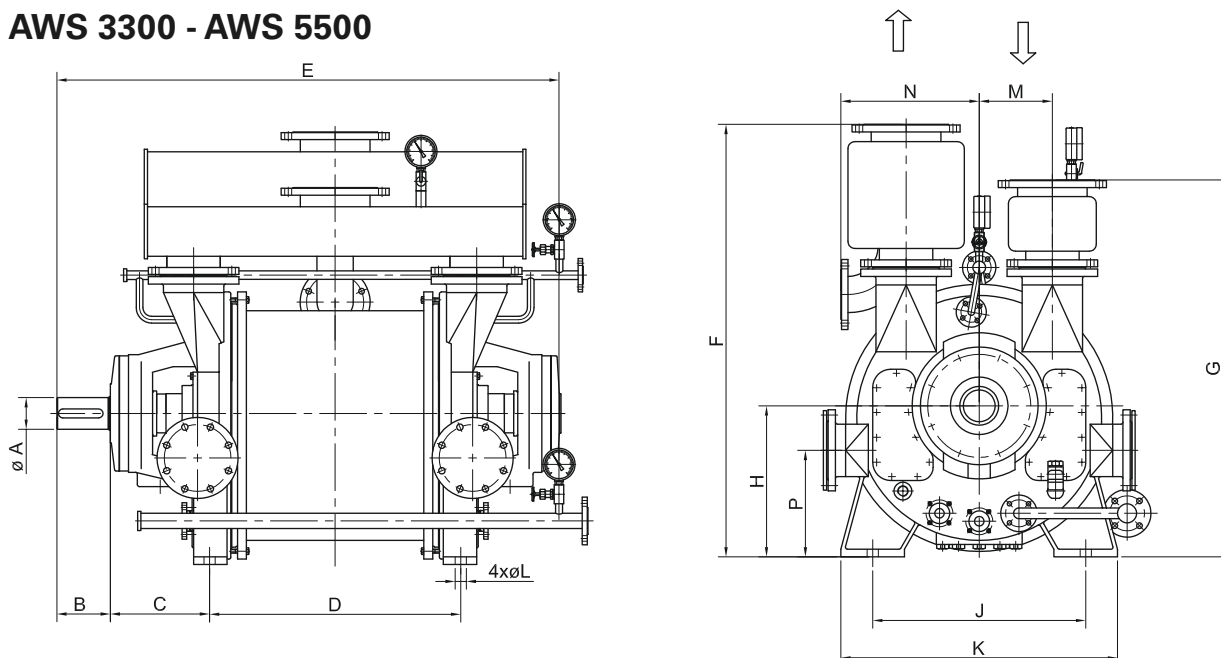
AWS 180-5500

	AWS 180	AWS 280	AWS 360	AWS 450	AWS 600	AWS 800	AWS 1100	AWS 1300	AWS 1600	AWS 2500	AWS 3300	AWS 5500
A	35 / 1.4	35 / 1.4	35 / 1.4	35 / 1.4	35 / 1.4	50 / 2.0	50 / 2.0	50 / 2.0	70 / 2.8	70 / 2.8	100 / 3.9	120 / 4.7
B	58 / 2.3	58 / 2.3	58 / 2.3	58 / 2.3	58 / 2.3	82 / 3.2	82 / 3.2	82 / 3.2	105 / 4.1	105 / 4.1	165 / 6.5	165 / 6.5
C	146.5 / 5.8	193.3 / 7.6	193.3 / 7.6	206 / 8.1	206 / 8.1	227 / 8.9	227 / 8.9	227 / 8.9	262.5 / 10.3	262.5 / 10.3	315 / 12.4	335 / 13.2
D	206 / 8.1	262 / 10.3	316 / 12.4	302 / 11.9	380 / 15.0	395 / 15.6	515 / 20.3	551 / 21.7	525 / 20.7	675 / 26.6	790 / 31.1	910 / 35.8
E	638 / 25.1	741 / 29.2	795 / 31.3	807 / 31.8	885 / 34.8	975 / 38.4	1095 / 43.1	1131 / 44.5	1237 / 48.7	1387 / 54.6	1585 / 62.4	1745 / 68.7
F	645 / 25.4	645 / 25.4	645 / 25.4	745 / 29.3	745 / 29.3	985 / 38.8	985 / 38.8	985 / 38.8	1245 / 49.0	1245 / 49.0	1360 / 53.5	1360 / 53.5
G	355 / 14.0	495 / 19.5	495 / 19.5	600 / 23.6	600 / 23.6	840 / 33.1	840 / 33.1	840 / 33.1	1030 / 40.6	1030 / 40.6	1185 / 46.7	1370 / 53.9
H	180 / 7.1	180 / 7.1	180 / 7.1	225 / 8.9	225 / 8.9	315 / 12.4	315 / 12.4	315 / 12.4	400 / 15.7	400 / 15.7	475 / 18.7	560 / 22.0
J	220 / 8.7	220 / 8.7	220 / 8.7	260 / 10.2	260 / 10.2	340 / 13.4	340 / 13.4	340 / 13.4	465 / 18.3	465 / 18.3	670 / 26.4	800 / 31.5
K	275 / 10.8	275 / 10.8	275 / 10.8	330 / 13.0	330 / 13.0	430 / 16.9	430 / 16.9	430 / 16.9	570 / 22.4	570 / 22.4	870 / 34.3	1000 / 39.4
L	15 / 0.6	15 / 0.6	15 / 0.6	18.5 / 0.7	18.5 / 0.7	24 / 0.9	24 / 0.9	24 / 0.9	28 / 1.1	28 / 1.1	35 / 1.4	35 / 1.4
M	105 / 4.1	105 / 4.1	105 / 4.1	125 / 4.9	125 / 4.9	155 / 6.1	155 / 6.1	155 / 6.1	215 / 8.5	215 / 8.5	230 / 9.1	285 / 11.2
N	210 / 8.3	225 / 8.9	225 / 8.9	255 / 10.0	255 / 10.0	330 / 13.0	330 / 13.0	330 / 13.0	420 / 16.5	420 / 16.5	535 / 21.1	535 / 21.1
P	-	-	-	-	-	-	-	-	-	-	335 / 13.2	395 / 15.6

AWS 180 - AWS 2500



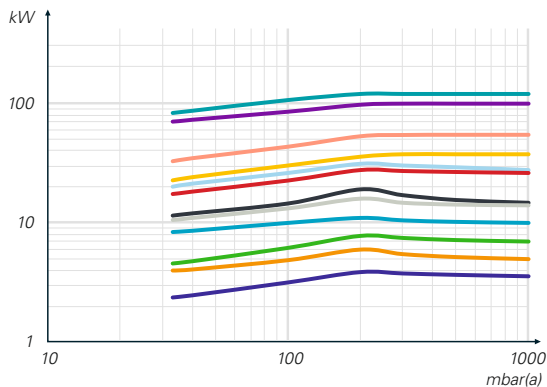
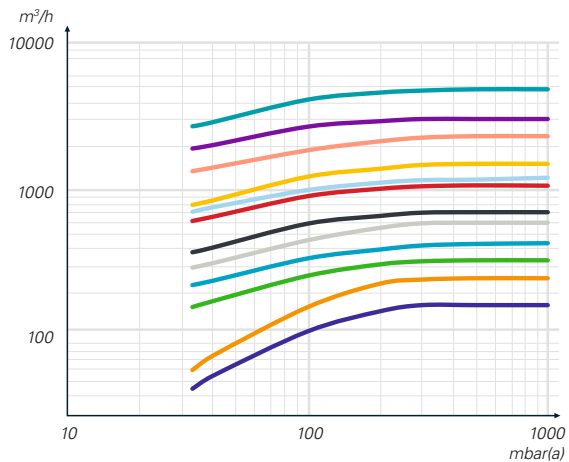
AWS 3300 - AWS 5500



PERFORMANCE CURVES

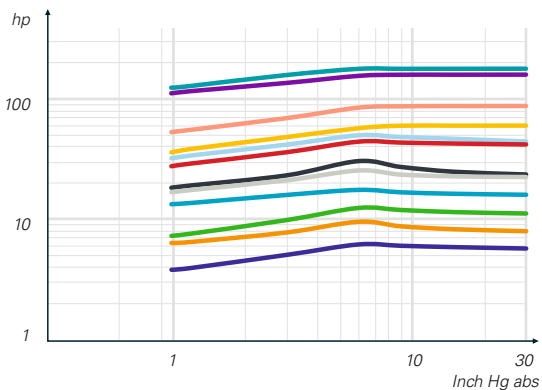
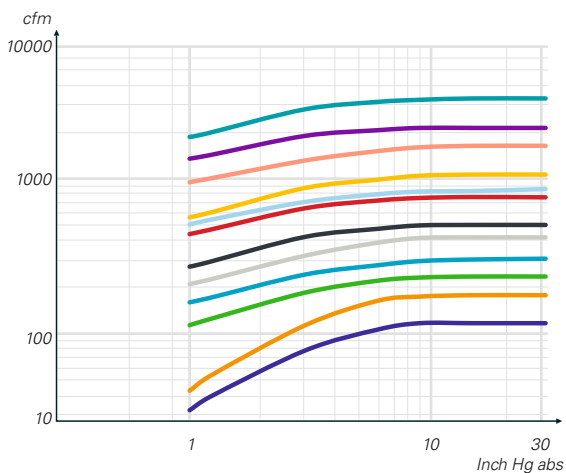
AWS 180-5500

50 Hz



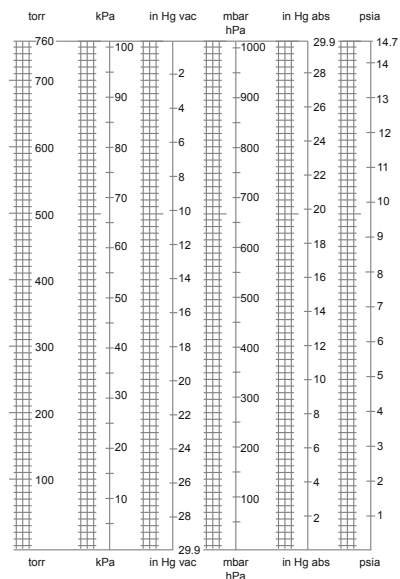
Performance characteristic assuming 20°C dry air load & sealed with 15°C water without recirculation. Flow figures are actual; measured at pump inlet.

60 Hz



Performance characteristic assuming 70°F dry air load & sealed with 59°F water without recirculation. Flow figures are actual; measured at pump inlet.

- AWS 5500
- AWS 1600
- AWS 800
- AWS 360
- AWS 3300
- AWS 1300
- AWS 600
- AWS 280
- AWS 2500
- AWS 1100
- AWS 450
- AWS 180



TECHNICAL SPECIFICATION

AWD 200-450

		AWD 200	AWD 400	AWD 610	AWD 1230	AWD 1680	AWD 1960	AWD 3280	AWD 4510
Max. discharge pressure (normal operation)	bar(g)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	psi(g)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Particle handling (max. diameter)	micron	30	30	40	40	40	50	50	50
Sound level	dB(A)	80	80	80	82	82	82	82	82
Vibration	mm/s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Process connections	mm	50	50	65	100	100	150	150	200
	inch	2	2	2 1/2	4	4	6	6	8
Shaft dimension	mm	35	35	45	60	60	80	80	110
Water connection	DN	15	15	20	50	50	65	65	80
	ANSI	1/2	1/2	3/4	2	2	2 1/2	2 1/2	3
Approximate block dimensions (W x D x H)	mm	722 x 280 x 457	873 x 280 x 457	987 x 340 x 568	1279 x 480 x 774	1379 x 480 x 774	1710 x 650 x 1034	2004 x 650 x 1034	2216 x 800 x 1301
	inch	28 x 11 x 18	34 x 11 x 18	39 x 13 x 22	50 x 19 x 30	54 x 19 x 30	67 x 26 x 41	79 x 26 x 41	87 x 31 x 51
Dry weight (block)	kg	90	160	222	584	760	1180	1680	2635
	lbs	198	353	485	1287	1676	2601	3704	5809

50 Hz

Nominal capacity	m ³ /h	195	400	610	1250	1685	2000	3300	4500
Speed	rpm	1450	1450	1450	980	980	740	740	590
Ultimate pressure	mbar(a)	30	30	30	30	30	30	30	30
Seal water flow @ 400 mbar(a)	m ³ /h	1.6	1.8	2.7	9	9.5	14	16	21
Nominal installed motor power	kW	5.5	11	22	45	55	75	110	132

60 Hz

Nominal capacity	cfm	126	283	412	853	1130	1324	2207	2884
Speed	rpm	1750	1750	1750	1150	1150	880	880	650
Ultimate pressure	torr	25	25	25	25	25	25	25	25
Seal water flow @ 350 torr(a)	gpm	7	8	12	40	42	62	70	90
Nominal installed motor power	hp	10	20	40	75	100	125	175	200

MATERIALS OF CONSTRUCTION

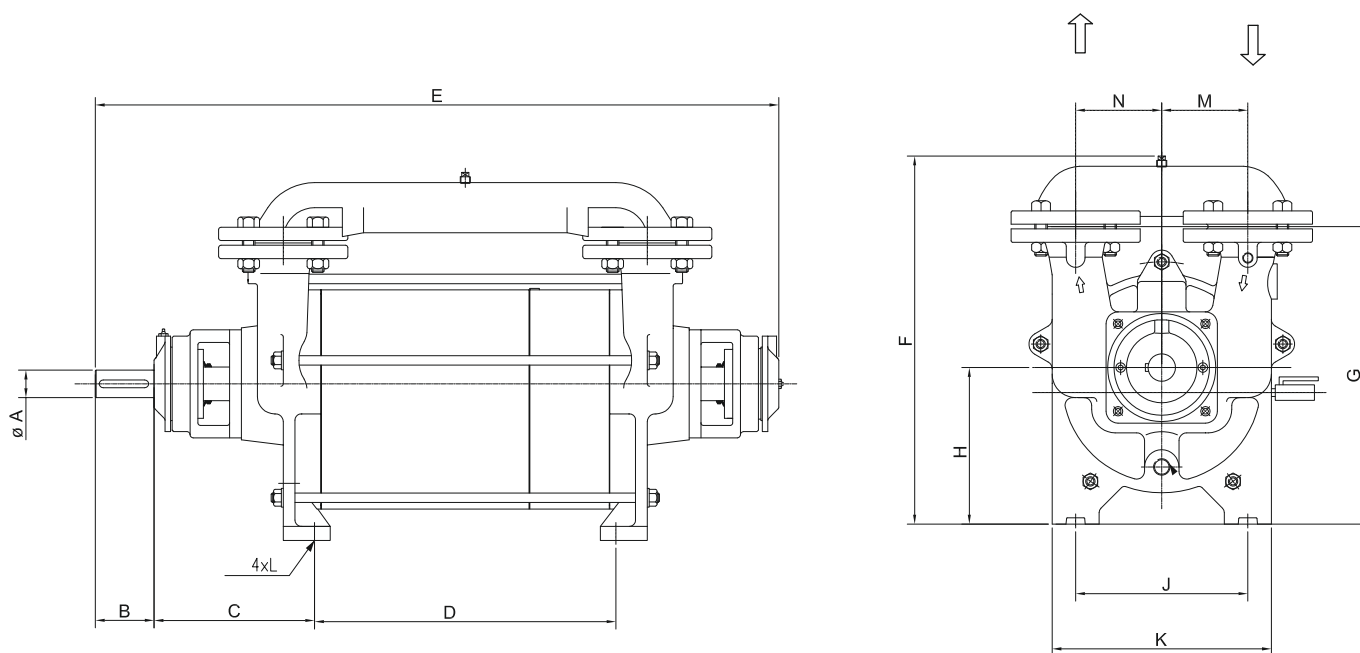
AWD 200-450

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DIMENSIONS (MM/INCH)

AWD 200-450

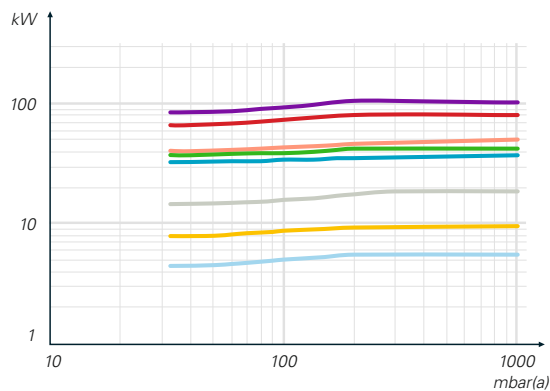
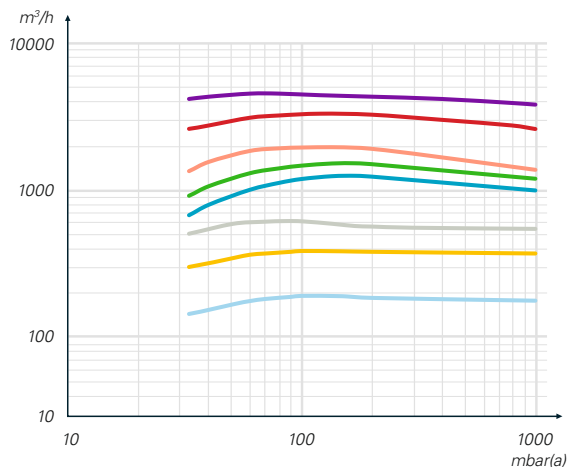
	AWD 200	AWD 400	AWD 610	AWD 1230	AWD 1680	AWD 1960	AWD 3280	AWD 4510
A	35 / 1.4	35 / 1.4	45 / 1.8	60 / 2.4	60 / 2.4	80 / 3.1	80 / 3.1	110 / 4.3
B	75 / 3.0	75 / 3.0	100 / 3.9	140 / 5.5	140 / 5.5	170 / 6.7	170 / 6.7	210 / 8.3
C	205 / 8.1	205 / 8.1	220 / 8.7	298 / 11.7	298 / 11.7	430 / 16.9	430 / 16.9	397 / 15.6
D	234 / 9.2	385 / 15.2	442 / 17.4	551 / 21.7	651 / 25.6	600 / 23.6	900 / 35.4	1127 / 44.4
E	722 / 28.4	873 / 34.4	987 / 38.9	1279 / 50.4	1379 / 54.3	1710 / 67.3	2004 / 78.9	2216 / 87.2
F	457 / 18.0	457 / 18.0	568 / 22.4	774 / 30.5	774 / 30.5	1034 / 40.7	1034 / 40.7	1301 / 51.2
G	380 / 15.0	380 / 15.0	476 / 18.7	595 / 23.4	595 / 23.4	800 / 31.5	800 / 31.5	1010 / 39.8
H	200 / 7.9	200 / 7.9	250 / 9.8	320 / 12.6	320 / 12.6	430 / 16.9	430 / 16.9	560 / 22.0
J	220 / 8.7	220 / 8.7	280 / 11.0	380 / 15.0	380 / 15.0	500 / 19.7	500 / 19.7	640 / 25.2
K	280 / 11.0	280 / 11.0	340 / 13.4	480 / 18.9	480 / 18.9	650 / 25.6	650 / 25.6	800 / 31.5
L	18 / 0.7	18 / 0.7	25 / 1.0	30 / 1.2	30 / 1.2	26 / 1.0	26 / 1.0	37 / 1.5
M	110 / 4.3	110 / 4.3	120 / 4.7	185 / 7.3	185 / 7.3	250 / 9.8	250 / 9.8	300 / 11.8



PERFORMANCE CURVES

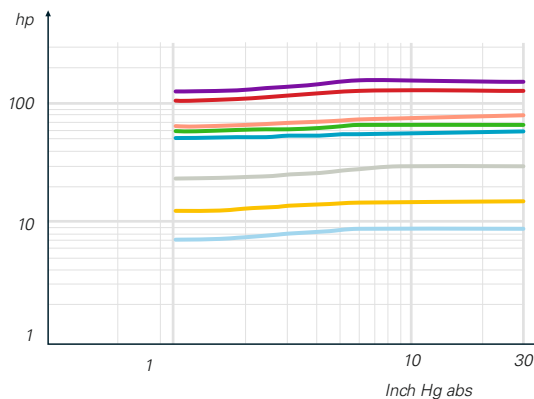
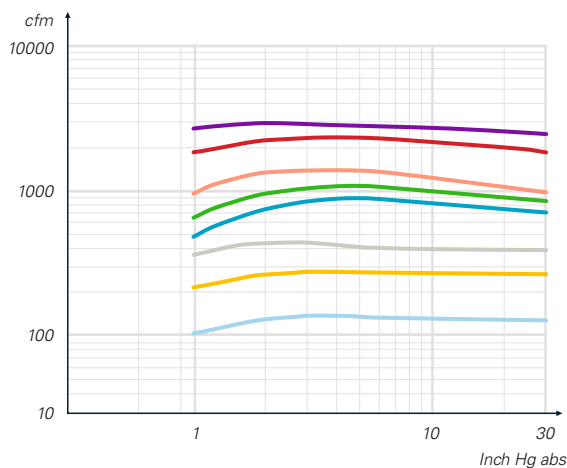
AWD 200-450

50 Hz



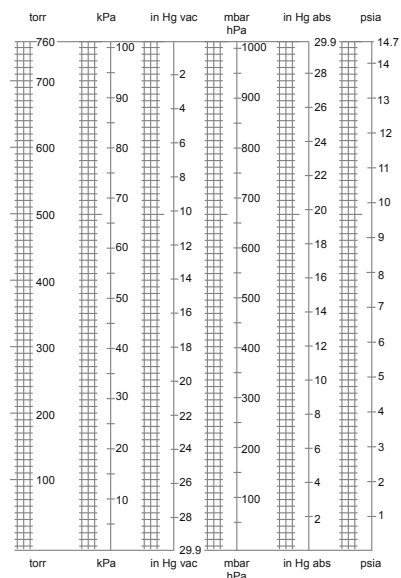
Performance characteristic assuming 20°C dry air load & sealed with 15°C water without recirculation. Flow figures are actual; measured at pump inlet.

60 Hz



Performance characteristic assuming 70°F dry air load & sealed with 59°F water without recirculation. Flow figures are actual; measured at pump inlet.

- AWD 200
- AWD 610
- AWD 1680
- AWD 3280
- AWD 400
- AWD 1280
- AWD 1960
- AWD 4510



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