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Zelezniki

VACUUM CLEANER MOTOR PERFORMANCE
CALCULATED FROM METRIC TO IMPERIAL UNITS & ASTM ORIFICE

Date: 25.9.2002

Code:	491.3.702	Working order number:	
Voltage / fequency:	120/60 V/Hz	Request number:	
Stator winding:		Number:	
Rotor winding:		Absolute pressure:	
Brushes:		Ambient temperature:	
Weight:	2410 g	Correction factor:	

METRIC UNITS — MEASURED DATA

Orifice mm	Current A	Input Pow. W	Speed /min	Vacuum kPa	Air flow dm3/s	Air Power W	Efficiency %	Vac (inH2O)	Flow (CFM)
40	13,32	1502,24	22257	2,87	51,54	148,05	9,86	11,52	109,21
30	13,36	1506,56	22193	7,61	46,66	355,19	23,58	30,55	98,87
23	13,19	1491,12	22389	14,07	36,69	516,13	34,61	56,49	77,74
21	13,05	1471,54	22594	15,95	32,43	517,37	35,16	64,03	68,72
19	12,79	1447,06	22853	17,67	27,83	491,83	33,99	70,94	58,97
16	12,26	1389,92	23570	19,99	20,90	417,85	30,06	80,25	44,28
13	11,40	1304,14	24508	22,05	14,46	318,94	24,46	88,52	30,64
10	10,52	1209,92	25774	23,96	8,93	213,89	17,68	96,19	18,92
6,5	9,72	1125,74	27098	25,26	3,91	98,87	8,78	101,41	8,28
0	9,06	1053,44	28485	26,93	0,00	0,00	0,00	108,11	0,00

Maximum measured values:

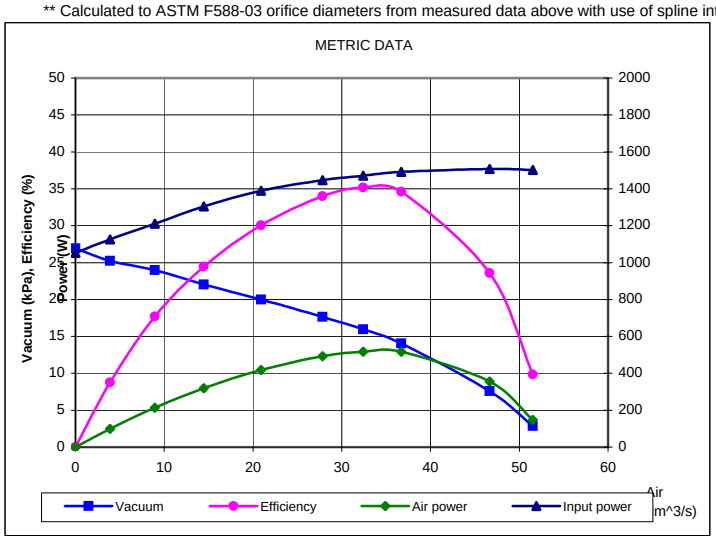
Input power = 1506,56 W, Air power = 517,37 W, Vacuum = 26,93 kPa = 108,11 inH2O, Air Flow = 51,54 L/s = 109,21 CFM, Efficiency = 35,16 %

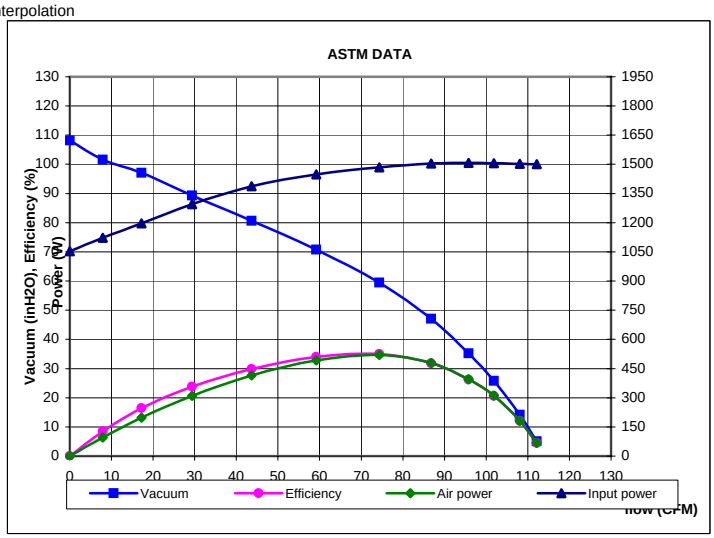
Note for units conversion: 1 inH2O = 0.2490889 kPa, 1 CFM = 0.4719474 l/s, 1 in = 25.4 mm (NIST Special Publication 811,1995)

IMPERIAL UNITS — CALCULATED DATA

Orifice in	Current A	Input Power W	Speed RPM	Vacuum inH2O	Air Flow CFM	Air Power W	Efficiency %	Oriffice mm
2,000								50,80
1,750	13,3	1501	22291	5,1	112,2	67,4	4,5	44,45
1,500	13,3	1503	22242	14,1	108,1	181,5	12,1	38,10
1,250	13,4	1506	22200	25,7	101,9	310,5	20,6	31,75
1,125	13,3	1507	22191	35,2	95,8	395,2	26,2	28,58
1,000	13,3	1504	22244	47,0	86,8	478,8	31,8	25,40
0,875	13,1	1484	22463	59,5	74,4	520,0	35,0	22,23
0,750	12,8	1448	22844	70,8	59,2	492,7	34,0	19,05
0,625	12,2	1387	23605	80,6	43,7	414,1	29,9	15,88
0,500	11,3	1295	24623	89,3	29,4	308,5	23,8	12,70
0,375	10,4	1196	25976	97,1	17,2	197,0	16,5	9,53
0,250	9,7	1123	27144	101,6	7,9	94,9	8,5	6,35
0,000	9,1	1053	28485	108,1	0,0	0,0	0,0	0,00

** Calculated to ASTM F588-03 orifice diameters from measured data above with use of spline interpolation





Measured in accordance with: IEC 60312

Measured by: Ivan Krmelj