



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

Date: 20.8.2007

Zelezniki

Code: 496.3.344
Voltage / frequency: 120/60 V/Hz
Stator winding:
Rotor winding:
Brushes:
Weight: 1670 g

Working order number: 177070
Request number: 11220807
Number: 3
Absolute pressure: 95,5 kPa
Ambient temperature: 21,25 °C
Correction factor: 1,0433

Pf = 1054,88 W, Pi = 589,93 W, Pm = 822,405 W

Orifice mm	Current A	Input Pow. W	Speed /min	Vacuum kPa	Air flow dm ³ /s	Air Power W	Efficiency %	Vac (inH ₂ O)	Flow (CFM)
50	9,20	1048,60	26761	2,28	71,83	164,02	15,64	9,15	152,20
40	9,29	1059,82	26645	4,49	64,18	288,45	27,22	18,03	135,99
30	9,18	1046,04	26851	8,54	49,30	421,11	40,26	34,28	104,46
23	8,58	984,74	27653	11,90	33,96	404,22	41,05	47,77	71,96
21	8,27	951,28	28034	12,77	29,28	373,90	39,30	51,27	62,04
19	7,92	913,18	28573	13,76	24,85	342,01	37,45	55,24	52,65
16	7,39	855,66	29511	15,33	18,56	284,53	33,25	61,54	39,33
13	6,74	785,40	30798	16,82	12,83	215,78	27,47	67,53	27,19
10	6,00	703,76	32333	17,49	7,77	135,94	19,32	70,22	16,46
6,5	5,42	638,97	34059	18,72	3,43	64,29	10,06	75,15	7,27
0	4,79	568,26	36173	19,54	0,00	0,00	0,00	78,45	0,00

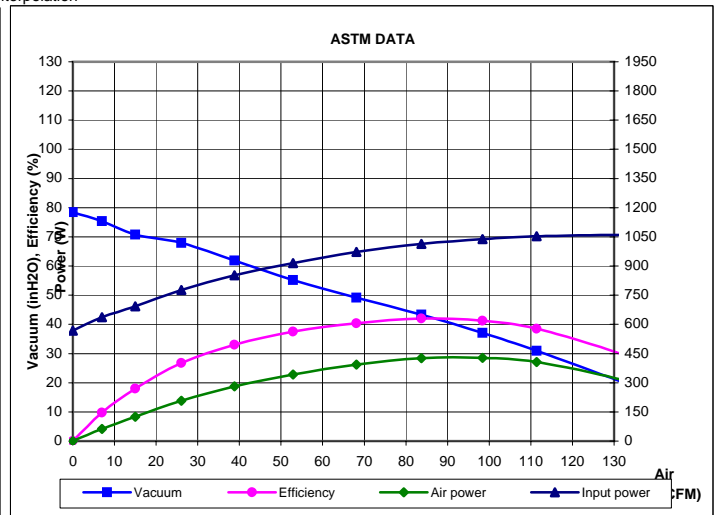
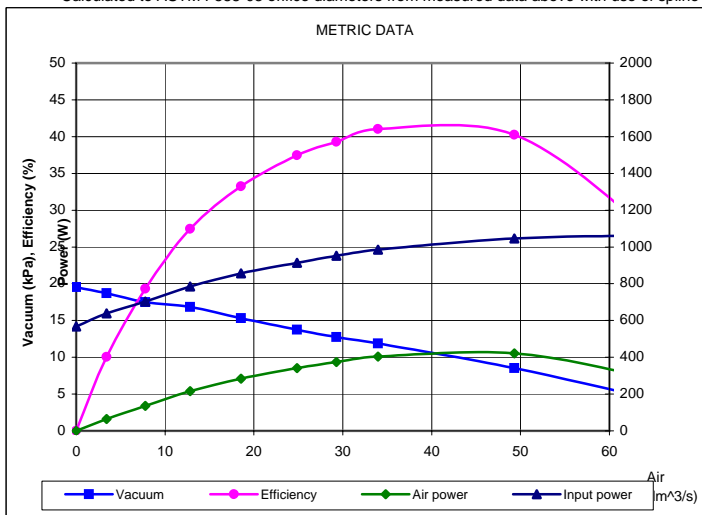
Maximum measured values:

Input power = 1059,82 W, Air power = 421,11 W, Vacuum = 19,54 kPa = 78,45 inH₂O, Air Flow * = 71,83 L/s = 152,20 CFM, Efficiency = 41,05 %

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)

Orifice in	Current A	Input Power W	Speed RPM	Vacuum inH ₂ O	Air Flow CFM	Air Power W	Efficiency %	Orifice mm
2,000	9,4	1047	26772	8,6	153,3	155,0	14,8	50,80
1,750	9,3	1056	26687	13,4	144,4	228,7	21,6	44,45
1,500	9,3	1060	26637	20,5	131,4	317,4	29,9	38,10
1,250	9,2	1052	26752	31,0	111,4	405,9	38,6	31,75
1,125	9,1	1039	26960	37,1	98,4	428,5	41,3	28,58
1,000	8,9	1014	27303	43,3	83,7	426,1	42,0	25,40
0,875	8,5	973	27785	49,1	68,1	393,2	40,4	22,23
0,750	7,9	914	28559	55,1	52,9	342,9	37,5	19,05
0,625	7,4	853	29557	61,8	38,8	281,9	33,0	15,88
0,500	6,7	777	30944	67,9	26,0	208,0	26,7	12,70
0,375	5,9	693	32582	70,8	15,0	124,3	18,0	9,53
0,250	5,4	637	34123	75,3	7,0	62,0	9,7	6,35
** 0,000	4,8	568	36173	78,4	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