



Zelezniki

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

Date: 18.10.2005

Code: 496.3.211
Voltage / fequency: 120/60 V / Hz
Stator winding: 90/0,80
Rotor winding: 13/0,50
Brushes: X 72
Weight: 1530 g

Working order number: 121517
Request number: 13441005
Number: 1
Absolute pressure: 97,23 kPa
Ambient temperature: 22,04 °C
Correction factor: 1,0326

Pf = 913,60 W, Pi = 488,52 W, Pm = 701,06 W

M E T R I C	Orifice mm	Current A	Input Pow. W	Speed /min	Vacuum kPa	Air flow dm3/s	Air Power W	Efficiency %	Vac (inH2O)	Flow (CFM)	M E A S U R E D
	50	7,94	912,06	24498	1,63	60,78	99,00	10,85	6,54	128,79	
	40	7,83	901,52	24575	3,31	55,30	183,27	20,33	13,29	117,17	
	30	7,60	877,66	24886	6,86	44,39	304,43	34,69	27,54	94,06	
	23	7,07	818,84	25799	10,09	31,44	317,19	38,74	40,51	66,62	
	21	6,84	793,36	26247	11,21	27,56	308,80	38,92	45,00	58,40	
	19	6,60	766,40	26748	12,23	23,52	287,64	37,53	49,10	49,84	
	16	6,09	709,82	27779	13,86	17,72	245,67	34,61	55,64	37,55	
	13	5,50	645,54	29117	15,45	12,34	190,62	29,53	62,03	26,15	
	10	4,93	581,90	30650	16,65	7,60	126,58	21,75	66,84	16,10	
	6,5	4,45	527,08	32411	17,50	3,33	58,32	11,07	70,26	7,06	
	0	3,97	473,39	34314	18,66	0,00	0,00	0,00	74,91	0,00	

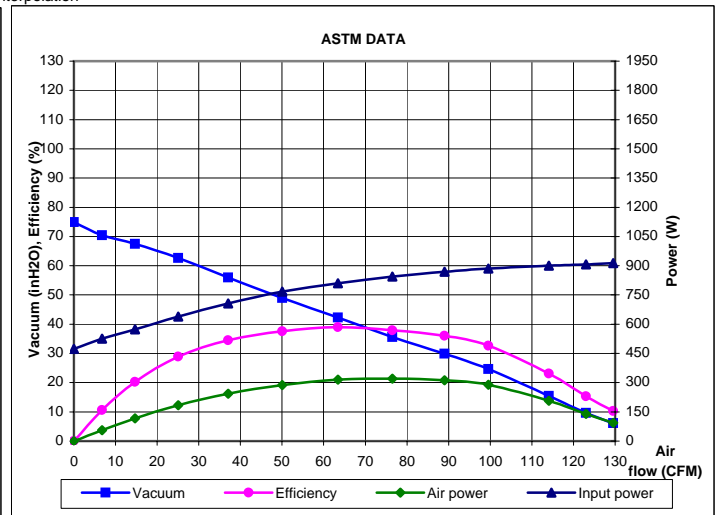
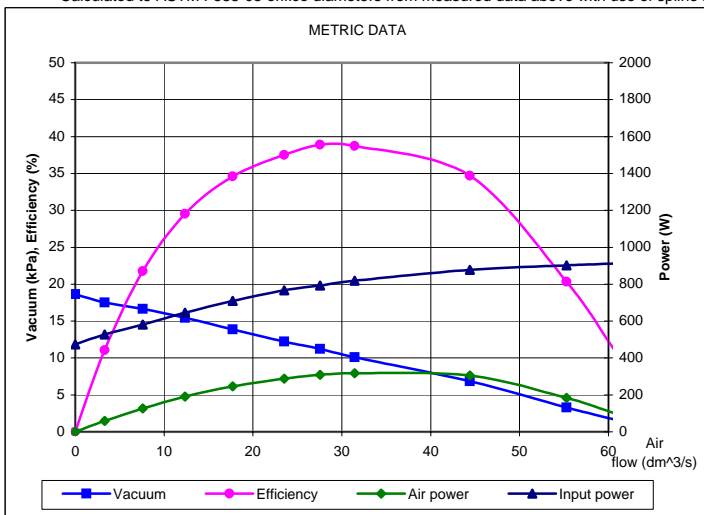
Maximum measured values:

Input power = 912,06 W, Air power = 317,19 W, Vacuum = 18,66 kPa = 74,91 inH2O, Air Flow * = 60,78 L/s = 128,79 CFM, Efficiency = 38,92 %

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)

I M P E R I A L	Orifice in	Current A	Input Power W	Speed RPM	Vacuum inH2O	Air Flow CFM	Air Power W	Efficiency %	Oriffice mm	C A L C U L A T E D
	2,000	8,1	913	24493	6,1	129,6	93,6	10,2	50,80	
	1,750	7,9	906	24537	9,6	123,0	139,1	15,4	44,45	
	1,500	7,8	899	24595	15,5	114,1	207,4	23,1	38,10	
	1,250	7,7	885	24778	24,7	99,6	288,9	32,6	31,75	
	1,125	7,5	870	25001	29,9	89,0	312,9	36,0	28,58	
	1,000	7,3	845	25376	35,6	76,5	320,0	37,9	25,40	
	0,875	7,0	809	25965	42,3	63,5	315,1	38,9	22,23	
	0,750	6,6	767	26734	49,0	50,0	288,3	37,6	19,05	
	0,625	6,1	707	27829	55,9	37,1	243,7	34,5	15,88	
	0,500	5,4	639	29263	62,6	25,1	184,5	28,9	12,70	
	0,375	4,9	573	30903	67,4	14,7	116,3	20,3	9,53	
	0,250	4,4	525	32475	70,4	6,8	56,0	10,7	6,35	
**	0,000	4,0	473	34314	74,9	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