



Zelezniki

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

Date: 3.9.2003

Code: 492.3.381
Voltage / fequency: 36V DC
Stator winding:
Rotor winding:
Brushes:
Weight: 2100 g

Working order number:
Request number:
Number:
Absolute pressure: kPa
Ambient temperature: °C
Correction factor:

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	0,00	0,00	0	0,00	0,00	0,00	0,00	0,00	0,00	
	40	22,18	801,80	16545	2,24	45,56	101,87	12,71	8,99	96,54	
	30	22,34	808,20	16508	5,59	40,22	224,91	27,83	22,44	85,22	
	23	21,63	782,40	16800	9,28	30,22	280,62	35,87	37,26	64,03	
	21	21,20	767,20	17051	10,25	26,43	270,83	35,30	41,15	56,00	
	19	20,58	745,80	17304	11,05	22,44	248,02	33,26	44,36	47,55	
	16	19,44	705,60	17769	12,20	16,71	203,93	28,90	48,98	35,41	
	13	18,30	664,20	18345	13,32	11,53	153,68	23,14	53,47	24,43	
	10	16,86	612,80	19028	14,29	7,09	101,33	16,54	57,37	15,02	
	6,5	15,72	571,60	19818	15,15	3,12	47,28	8,27	60,82	6,61	
	0	14,70	533,20	20650	16,17	0,00	0,00	0,00	64,92	0,00	

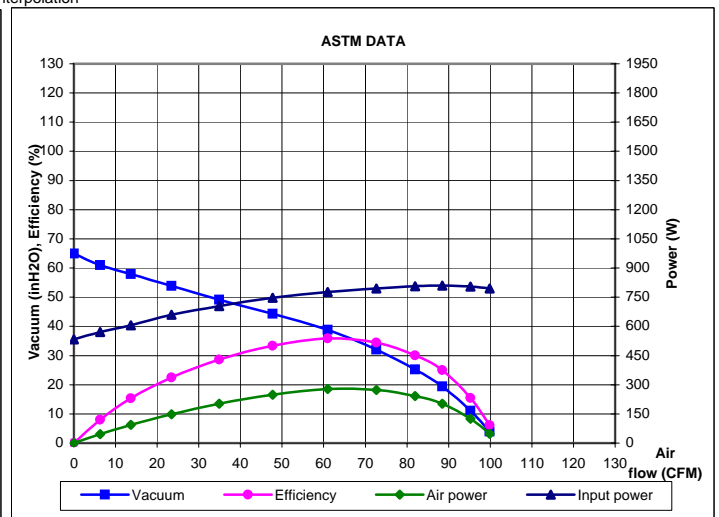
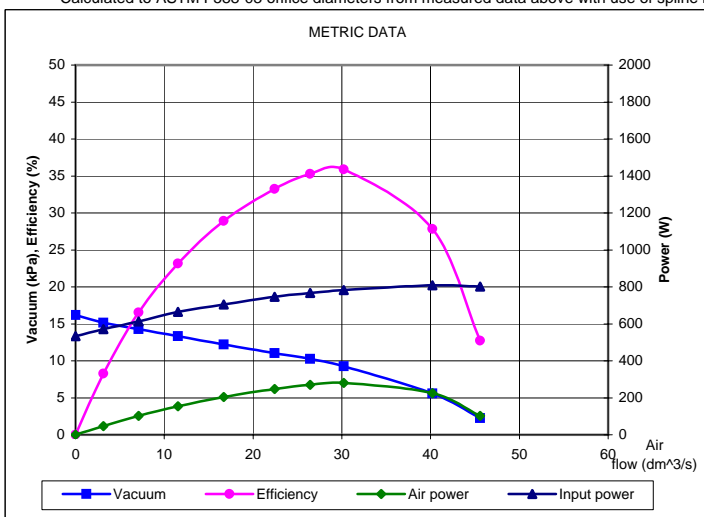
Maximum measured values:

Input power = 808,2 W, Air power = 280,62 W, Vacuum = 16,17 kPa = 64,92 inH2O, Air Flow = 45,56 L/s = 96,54 CFM, Efficiency = 35,87 %

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								50,80	
	1,750	22,0	795	16575	3,9	99,8	47,3	6,1	44,45	
	1,500	22,3	805	16531	11,1	95,3	125,1	15,5	38,10	
	1,250	22,4	810	16505	19,4	88,5	203,2	25,1	31,75	
	1,125	22,3	806	16517	25,2	81,9	242,4	30,1	28,58	
	1,000	22,0	795	16608	32,1	72,6	273,3	34,4	25,40	
	0,875	21,5	777	16892	38,8	61,0	278,6	35,9	22,23	
	0,750	20,6	746	17297	44,3	47,8	248,7	33,3	19,05	
	0,625	19,4	704	17791	49,2	34,9	201,9	28,7	15,88	
	0,500	18,2	659	18409	53,9	23,4	148,5	22,5	12,70	
	0,375	16,7	606	19142	57,9	13,7	93,2	15,4	9,53	
	0,250	15,7	570	19847	60,9	6,3	45,4	8,0	6,35	
**	0,000	14,7	533	20650	64,9	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