



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

Date: 24.5.2002

Zelezniki

Code: 496.3.430-2  
Voltage / fequency: 110/50 V/Hz  
Stator winding:  
Rotor winding:  
Brushes:  
Weight: 2070 g

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

METRICS	Orifice mm	Current A	Input Pow. W	Speed /min	Vacuum kPa	Air flow dm3/s	Air Power W	Efficiency %	Vac (inH2O)	Flow (CFM)	MEASURED DATA
	40	12,04	1267,56	19801	3,06	53,18	162,82	12,85	12,28	112,68	
	30	12,02	1263,04	19767	7,51	46,36	348,23	27,57	30,15	98,23	
	23	11,37	1199,92	20450	12,45	34,67	431,55	35,97	49,98	73,46	
	21	11,00	1163,22	20767	13,83	30,38	419,98	36,11	55,52	64,37	
	19	10,57	1116,72	21136	15,14	25,96	393,09	35,20	60,78	55,01	
	16	9,86	1044,24	21894	17,00	19,45	330,51	31,65	68,25	41,21	
	13	9,07	964,60	22823	18,68	13,44	251,11	26,03	74,99	28,48	
	10	8,21	875,76	23947	20,28	8,30	168,30	19,22	81,42	17,59	
	6,5	7,27	781,52	25479	21,77	3,67	79,89	10,22	87,40	7,78	
	0	6,47	700,14	27144	24,10	0,00	0,00	0,00	96,75	0,00	

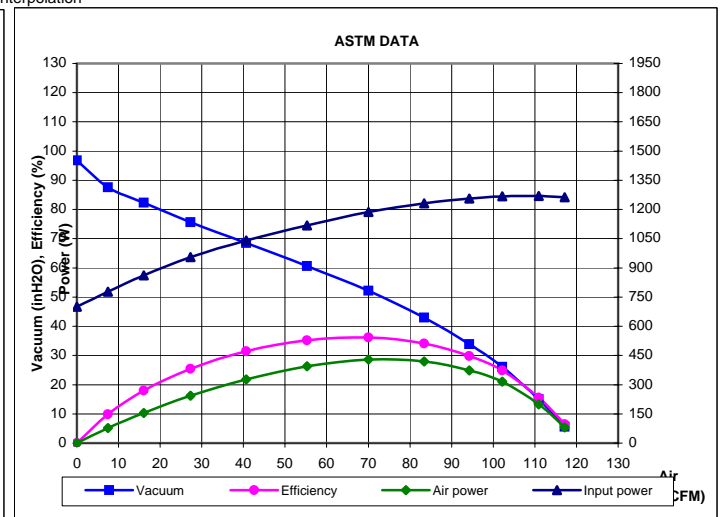
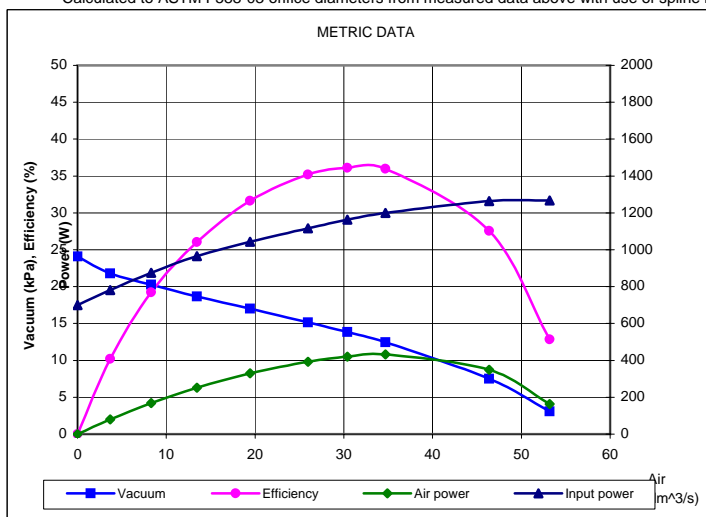
Maximum measured values:

Input power = 1267,56 W, Air power = 431,55 W, Vacuum = 24,1 kPa = 96,75 inH2O, Air Flow = 53,18 L/s = 112,68 CFM, Efficiency = 36,11 %

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	Orifice in	Current A	Input Power W	Speed RPM	Vacuum inH2O	Air Flow CFM	Air Power W	Efficiency %	Orifice mm	CALCULATED
	2,000								50,80	
	1,750	12,0	1263	19905	5,5	117,2	80,1	6,5	44,45	
	1,500	12,1	1270	19749	15,1	110,9	198,2	15,6	38,10	
	1,250	12,1	1268	19707	26,1	102,2	316,0	24,9	31,75	
	1,125	12,0	1256	19849	33,8	94,3	374,0	29,8	28,58	
	1,000	11,7	1231	20137	43,0	83,4	419,8	34,1	25,40	
	0,875	11,2	1187	20568	52,2	70,0	429,3	36,2	22,23	
	0,750	10,6	1118	21126	60,7	55,2	393,9	35,2	19,05	
	0,625	9,8	1041	21930	68,5	40,7	327,4	31,4	15,88	
	0,500	9,0	956	22925	75,7	27,3	242,8	25,4	12,70	
	0,375	8,1	862	24153	82,3	16,0	155,2	18,0	9,53	
	0,250	7,2	778	25537	87,6	7,5	76,8	9,9	6,35	
**	0,000	6,5	700	27144	96,8	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