

VACUUM PUMP ENGINEERING DATA  
Performance Inlet Conditions

Vacuum		Volumetric Efficiency in percent referred to inlet conditions and Brake Horsepower at sea level											
		Model V23A			Model V235			Model V244			Model V255 (2)		
Inches	# of	1.5 HP			1.5HP			2HP			3 & 5HP		
Referred to	Perfect	3" x 2.75			3" & 3" x 2.75"			4" & 4" x 2.75"			5" & 5" x 3.5"		
30" Barometer	Vacuum	800 RPM			800 RPM			800 RPM			750		
		9.0 PD			18.0 PD			32.0 PD			60.0 PD		
		V.E.	CFM	BHP	V.E.	CFM	BHP	V.E.	CFM	BHP	V.E.	CFM	BHP
12.0	40.0	83.3	7.5	0.7	83.3	15.0	1.1	85.0	27.2	1.8	85.6	51.4	3.6
15.0	50.0	81.6	7.3	0.7	81.6	14.7	1.1	83.4	26.7	1.8	85.0	51.0	3.54
18.0	60.0	79.5	7.2	0.7	79.6	14.3	1.1	81.0	25.9	1.8	83.0	49.8	3.26
20.0	66.7	78.5	7.1	0.7	78.0	14.0	1.1	79.3	25.4	1.7	81.0	48.6	3.18
22.0	73.3	74.8	6.7	0.7	75.4	13.6	1.0	76.4	24.4	1.6	78.4	47.0	2.98
24.0	80.0	70.3	6.3	0.6	71.0	12.8	0.9	71.5	22.9	1.5	73.4	44.0	2.68
25.0	83.3	66.7	6.0	0.6	67.6	12.2	0.9	68.2	21.8	1.4	70.0	42.0	2.51
26.0	86.7	61.6	5.5	0.6	62.7	11.3	0.9	63.8	20.4	1.3	65.5	39.3	2.3
27.0	90.0	52.0	4.7	0.5	53.8	9.7	0.8	55.2	17.7	1.2	57.1	34.3	2.05
27.5	91.7	44.1	4.0	0.5	46.5	8.4	0.8	48.3	15.5	1.2	50.5	30.3	1.9
28.0	83.4	43.6	3.9	0.5	36.0	6.5	0.7	38.0	12.2	1.1	40.5	24.3	1.75
28.2	94.0	27.0	2.4	0.5	32.0	5.8	0.7	33.6	10.8	1.1	36.0	21.6	1.72
28.4	94.6	20.5	1.8	0.4	27.4	4.9	0.7	28.0	9.0	1.0	30.6	18.4	1.6
28.6	95.4	8.5	7.7	0.4	18.0	3.2	0.7	21.5	6.9	1.0	22.5	13.5	1.52
28.8	96.0	0.0		0.4	10.5	1.9	0.7	11.0	3.5	1.0	11.4	6.8	1.46
29.0	96.7	—		—	0.0		0.6	0.0		1.0	0.0		1.37
29.2	97.4	—		—	—		—	—		—	—		—
29.4	98.0	—		—	—		—	—		—	—		—
Maximum Vacuum		28.8			29.0			29.0			29.0		
Peak BHP (1)		0.73			1.1			1.8			3.6		

- Notes:** (1) Motors must be sized to equal peak load on starting.  
 Duplex units—multiply capacity by two.  
 (2) Use 5HP for AS&S or for continuous operation below 22" Hg.



# Vacuum Pumps

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Industrial Systems-Light  
 Davidson, NC 28036

## VACUUM PUMP ENGINEERING DATA Performance Inlet Conditions

Vacuum		Volumetric Efficiency in percent referred to inlet conditions and Brake Horsepower at sea level											
		Model 7V			Model 15V			Model 20V			Model 20V		
Inches	# of	5HP			7.5HP			15HP			20HP		
Referred to	Perfect	900 RPM			800 RPM			800 RPM			1100 RPM		
30" Barometer	Vacuum	99 PD			133 PD			214 PD			294 PD		
		V.E.	CFM	BHP	V.E.	CFM	BHP	V.E.	CFM	BHP	V.E.	CFM	BHP
12.0	40.0	83.3	82.5	5.3	83.3	110.8	7.4	74.5	159.4	14.2	74.5	219.0	19.5
15.0	50.0	81.6	80.8	5.2	81.6	108.5	7.2	73.1	156.4	13.5	73.1	214.9	18.5
18.0	60.0	79.5	78.7	5.1	79.6	105.7	7.0	70.7	151.3	12.4	70.7	207.9	17.0
20.0	66.7	78.5	77.7	5.0	78.0	103.7	6.7	65.3	139.7	11.6	65.3	192.0	16.0
22.0	73.3	74.8	74.1	4.8	75.4	100.3	6.3	58.4	125.0	10.7	58.4	171.7	14.7
24.0	80.0	70.3	69.6	4.6	71.0	94.4	5.6	50.8	108.7	9.2	50.8	149.4	12.7
25.0	83.3	66.7	66.0	4.5	67.6	89.9	5.2	43.6	99.7	8.4	43.6	137.0	11.6
26.0	86.7	61.6	61.0	4.2	62.7	83.4	4.7	40.5	86.7	7.6	40.5	119.1	10.4
27.0	90.0	52.0	51.5	3.8	53.8	71.6	4.2	30.2	64.6	6.4	30.2	88.8	8.8
27.5	91.7	44.1	43.7	3.6	46.5	61.8	4.0	22.4	47.9	5.7	22.4	65.9	7.9
28.0	83.4	43.6	43.2	3.0	36.0	47.9	3.3	12.0	25.7	5.0	12.0	35.3	6.9
28.2	94.0	27.0	26.7	2.8	32.0	42.6	3.2	11.1	23.8	4.8	11.1	32.6	6.6
28.4	94.6	20.5	20.3	2.7	27.4	36.4	3.0	6.6	141.2	4.7	6.6	19.4	6.4
28.6	95.4	8.5	84.2	2.5	18.0	23.9	2.9	2.1	44.9	4.5	2.1	61.7	6.2
28.8	96.0	0.0		2.3	10.5	14.0	2.8	—	—	4.4	—	—	6.0
29.0	96.7	—		2.0	0.0		2.0	—	—	—	—	—	—
29.2	97.4	—		—	—		2.0	—	—	—	—	—	—
29.4	98.0	—		—	—		—	—	—	—	—	—	—