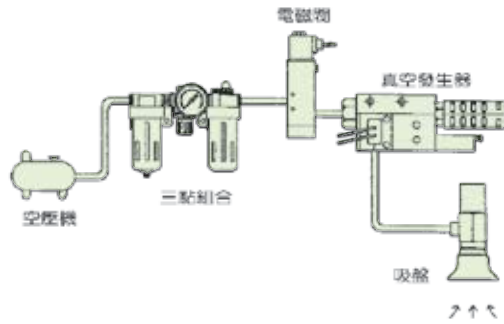


■ 真空吸盤使用概略

P1：單層式真空吸盤
P2：雙層式真空吸盤



■ 理論吸著力

● 圓形吸盤

吸盤徑 (\varnothing mm)	2	3.5	5	6	8	10	15	20	25	30	35	40	50	60	80	95	100	120	150	200
吸盤面積 (cm^2)	0.031	0.096	0.196	0.282	0.502	0.785	1.767	3.141	4.908	7.068	9.621	12.56	19.63	28.27	50.26	70.88	78.53	113.0	176.7	314.1
-93.3 kpa -700(mmHg)	0.293 [0.029]	0.900 [0.091]	1.837 [0.186]	2.645 [0.269]	4.703 [0.478]	7.349 [0.747]	16.53 [1.681]	29.39 [2.989]	45.93 [4.670]	66.14 [6.725]	90.03 [9.153]	117.5 [11.95]	183.7 [18.68]	264.5 [26.90]	470.3 [47.82]	663.2 [67.44]	734.9 [74.79]	1058 [107.6]	1653 [168.1]	2939 [298.9]
-80.8 kpa -600(mmHg)	0.254 [0.025]	0.779 [0.078]	1.591 [0.160]	2.291 [0.230]	4.073 [0.409]	6.364 [0.640]	14.32 [1.441]	25.45 [2.562]	39.78 [4.003]	57.28 [5.764]	77.96 [7.846]	101.8 [10.24]	159.1 [16.01]	229.1 [23.05]	407.3 [40.99]	574.4 [57.8]	636.4 [63.05]	916.5 [92.23]	1432 [144.1]	2545 [256.2]
-66.7 kpa -500(mmHg)	0.210 [0.021]	0.648 [0.065]	1.313 [0.133]	1.891 [0.192]	3.362 [0.341]	5.254 [0.533]	11.82 [1.200]	21.01 [2.135]	32.83 [3.336]	47.28 [4.083]	64.36 [6.538]	84.06 [8.540]	131.3 [13.34]	189.1 [19.21]	336.2 [34.16]	474.1 [48.17]	525.4 [53.37]	756.5 [76.86]	1182 [120.0]	2101 [213.5]
-53.4 kpa -400(mmHg)	0.168 [0.017]	0.515 [0.052]	1.051 [0.106]	1.514 [0.153]	2.692 [0.273]	4.206 [0.427]	9.464 [0.960]	16.82 [1.708]	26.29 [2.668]	37.85 [3.843]	51.52 [5.230]	67.30 [6.832]	105.1 [10.67]	151.4 [15.37]	269.2 [27.32]	379.6 [38.53]	420.6 [42.70]	605.7 [61.48]	947.4 [96.07]	1682 [170.8]
-40.0 kpa -300(mmHg)	0.126 [0.012]	0.385 [0.039]	0.787 [0.080]	1.134 [0.115]	2.016 [0.204]	3.150 [0.320]	7.089 [0.720]	12.6 [1.281]	19.69 [2.001]	28.35 [2.882]	38.59 [3.923]	50.41 [5.124]	78.77 [8.006]	113.4 [11.52]	201.6 [20.49]	284.3 [28.90]	315.0 [32.02]	453.7 [46.11]	708.9 [72.05]	1260 [128.1]

● 橢圓形吸盤

吸盤徑 (\varnothing mm)	2x4	3.5x7	4x10	4x20	4x30	5x10	5x20	5x30	6x10	6x20	6x30	8x20	8x30
吸盤面積 (cm^2)	0.071	0.218	0.365	0.765	1.165	0.446	0.946	1.446	0.522	1.122	1.722	1.462	2.262
-93.3 kpa -700(mmHg)	0.664 [0.068]	2.04 [0.207]	3.416 [0.347]	7.159 [728]	10.902 [1.108]	4.173 [0.424]	8.852 [0.900]	13.35 [1.375]	4.884 [0.496]	10.49 [1.067]	16.11 [1.638]	13.68 [1.391]	21.16 [2.152]
-80.8 kpa -600(mmHg)	0.575 [0.058]	1.767 [0.178]	2.958 [0.298]	6.200 [0.624]	9.441 [0.950]	3.614 [0.363]	7.666 [0.771]	11.71 [1.179]	4.230 [0.425]	9.092 [0.915]	13.95 [1.404]	11.84 [1.192]	18.33 [1.844]
-66.7 kpa -500(mmHg)	0.475 [0.048]	1.158 [0.148]	2.442 [0.248]	5.118 [0.529]	7.794 [0.792]	2.983 [0.303]	6.328 [0.642]	9.673 [0.982]	3.492 [0.354]	7.750 [0.762]	11.51 [1.170]	9.780 [0.993]	15.13 [1.537]
-53.4 kpa -400(mmHg)	0.380 [0.039]	1.168 [0.119]	1.955 [0.198]	4.097 [0.416]	6.240 [0.633]	2.388 [0.242]	5.066 [0.514]	7.744 [0.786]	2.795 [0.283]	6.009 [0.610]	9.222 [0.936]	7.830 [0.794]	12.11 [1.229]
-40.0 kpa -300(mmHg)	0.285 [0.029]	0.875 [0.089]	1.464 [0.149]	3.069 [0.312]	4.673 [0.475]	1.789 [0.181]	3.795 [0.385]	5.801 [0.589]	2.094 [0.212]	4.501 [0.457]	6.908 [0.702]	5.865 [0.596]	9.074 [0.922]

■ 吸盤材質與特性

◎：於使用上幾乎無影響 ○：依使用環境可耐用 ×：不適用

材質	項目	硬度 HS($\pm 5^\circ$)	使用溫度 範圍 $^\circ\text{C}$	耐油性 汽油	耐油性 茶	耐鹼性	耐酸性	耐候性	耐臭氧性	耐磨耗性	耐水性	耐溶劑性 苯、甲苯
NBR		50°	0~120	◎	×	○	○	○	×	◎	◎	×
矽膠		40°	-30~200	×	×	◎	×	◎	◎	×	○	×
PU 橡膠		60°	0~60	◎	×	×	×	○	◎	◎	×	×
氟橡膠		60°	0~250	◎	◎	×	◎	◎	◎	○	◎	◎
導電性NBR		50°	0~100	○	×	○	×	○	×	○	○	×
導電性矽膠		50°	-10~200	×	×	○	×	◎	◎	×	○	×