

6) TVL: Normal Low Vacuum Standard Type

Air-driven vacuum pump with multi-stage ventury nozzle of low vacuum & high flow.
By using only 4 ~ 5.8 bar, can get up to -74.2 kpa of vacuum level and much vacuum flow than other identical products.

Use of Application - process required low vacuum & high flow such as film process device, shoemaking, gas recovery, printing machine, etc.



Performance and Specifications Outline

Max. Vacuum Level	Max. 556.64 (mmHg.G) Max. -74.2 (kPa) Max. -21.91 (nHg)
Max. Vacuum Flow	Max. 388 ~ 3,046 (ℓ/min) Max. 13.701 ~ 107.556 (scfm)
Supply Air Condition	Compressed Air
Compressed Air Pressure	4 ~ 5.8 bar 58.01 ~ 84.12 psi
Working Temperature	- 20 ~ +80 - 4 ~ +176
Noise Level	60 ~ 65 dBA

Ordering information

TV	L	25 50 75	- C5	AP	N	- E . S
Manufacturer	Vacuum Level	Size of Vacuum Pump	Input Compressed Air Pressure	Material of Pump Body	Material of Seal Kits	Energy Saving Kit & The Other Option
TOTAL Vacuum Pump	L: Low Vacuum (Max. -72.4kPa)	25 : Max. 388 (ℓ/min) Max. 13.701 (scfm)	Circulating Pressure - C5: 4 ~ 5 bar	A: Aluminum P: PPS AP: Al+PPS PP: PPS+PPS AA: Al + Al	N: Nitrile V: Viton E: EPDM	-E. S: Energy Saving Kit (SW: switch Cut-Off V/V, Check V/V, Vacuum Release V/V)
		50 : Max. 767 (ℓ/min) Max. 27.083 (scfm)				
		75 : Max. 1,108 (ℓ/min) Max. 39.124 (scfm)				
		100 : Max. 1,492 (ℓ/min) Max. 52.684 (scfm)				
		125 : Max. 1,864 (ℓ/min) Max. 65.819 (scfm)				
		150 : Max. 2,320 (ℓ/min) Max. 81.921 (scfm)				

TVL: Medium Flow Low Vacuum Type

Characteristics / Low Vacuum

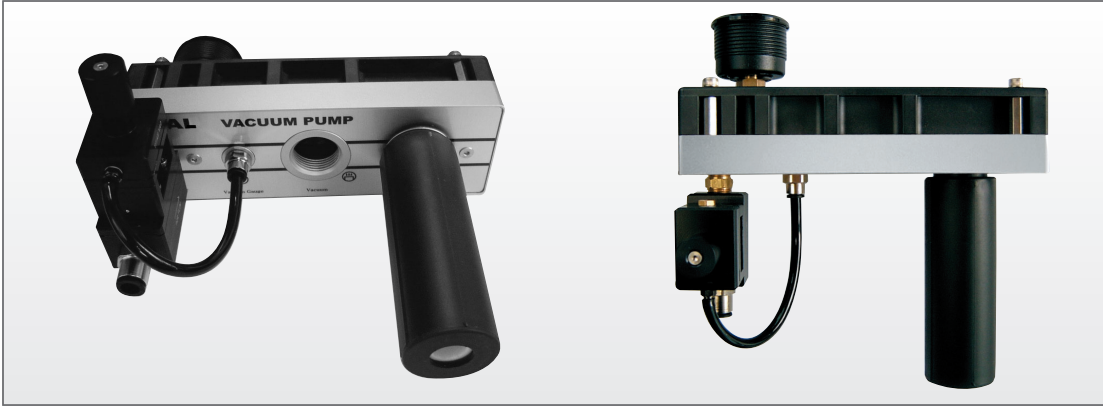
Pump Model	Max. Vacuum (mmHg · G) (-inHg) (-kPa)	Max. Vacuum Flow (N ℓ /min) (scfm)	Air Consumption (N ℓ /min) (scfm)	Noise Level (dBA)	Net Weight (g) (oz)	Pipe Arrangement (Ø)		
						Compressed Air (mm) (inches)	Vacuum (mm) (inches)	Exhaust (mm) (inches)
TVL25	557 21.93 74.27	388 13.701	78~106 2.754~3.743	60~65	645 22.749	>4 0.16"	>12 0.47"	G 3/4"
TVL50		767 27.083	154~212 5.438~7.486	60~65	651 22.961	>6 0.24"	>14 0.55"	G 3/4"
TVL75		1,108 39.124	232~329 8.192~11.617	60~65	847 29.874	>8 0.32"	>19 0.75"	G 3/4"
TVL100		1,492 52.684	300~415 10.583~14.654	60~65	853 30.085	>8 0.32"	>19 0.75"	G 3/4"
TVL125		1,864 65.819	376~544 13.277~19.209	60~65	1,049 36.998	>8 0.32"	>25 0.98"	G 3/4"
TVL150		2,320 81.921	448~637 15.819~22.493	60~65	1,055 37.210	>10 0.39"	>25 0.98"	G 3/4"

Vacuum flow in (N ℓ /min) (scfm) at different vacuum levels (mmHg · G) (-inHg) (-kPa)

Pump Model	Vacuum Level	Vacuum Flow (N ℓ /min) (scfm)								
		0 0 0	75 2.95 10	150 5.91 20	225 8.86 30	300 11.81 40	375 14.76 50	450 17.72 60	525 20.67 70	600 23.62 80
TVL25		388 13.701	228 8.051	166 5.862	108 3.814	55 1.942	43 1.518	27 0.953	16 0.565	—
TVL50		767 27.083	468 16.525	312 11.017	199 7.027	107 3.778	89 3.143	61 2.154	37 1.306	—
TVL75		1,108 39.124	743 26.236	542 19.138	372 13.136	220 7.768	166 5.862	121 4.273	77 2.719	—
TVL100		1,492 52.684	912 32.203	661 23.340	374 13.206	278 9.816	182 6.427	149 5.261	92 3.249	—
TVL125		1,864 65.819	1,097 38.736	803 28.355	414 14.619	322 11.370	214 7.556	180 6.356	103 3.637	—
TVL150		2,320 81.921	1,322 46.681	971 34.287	532 18.785	378 13.347	271 9.569	201 7.097	152 5.367	—

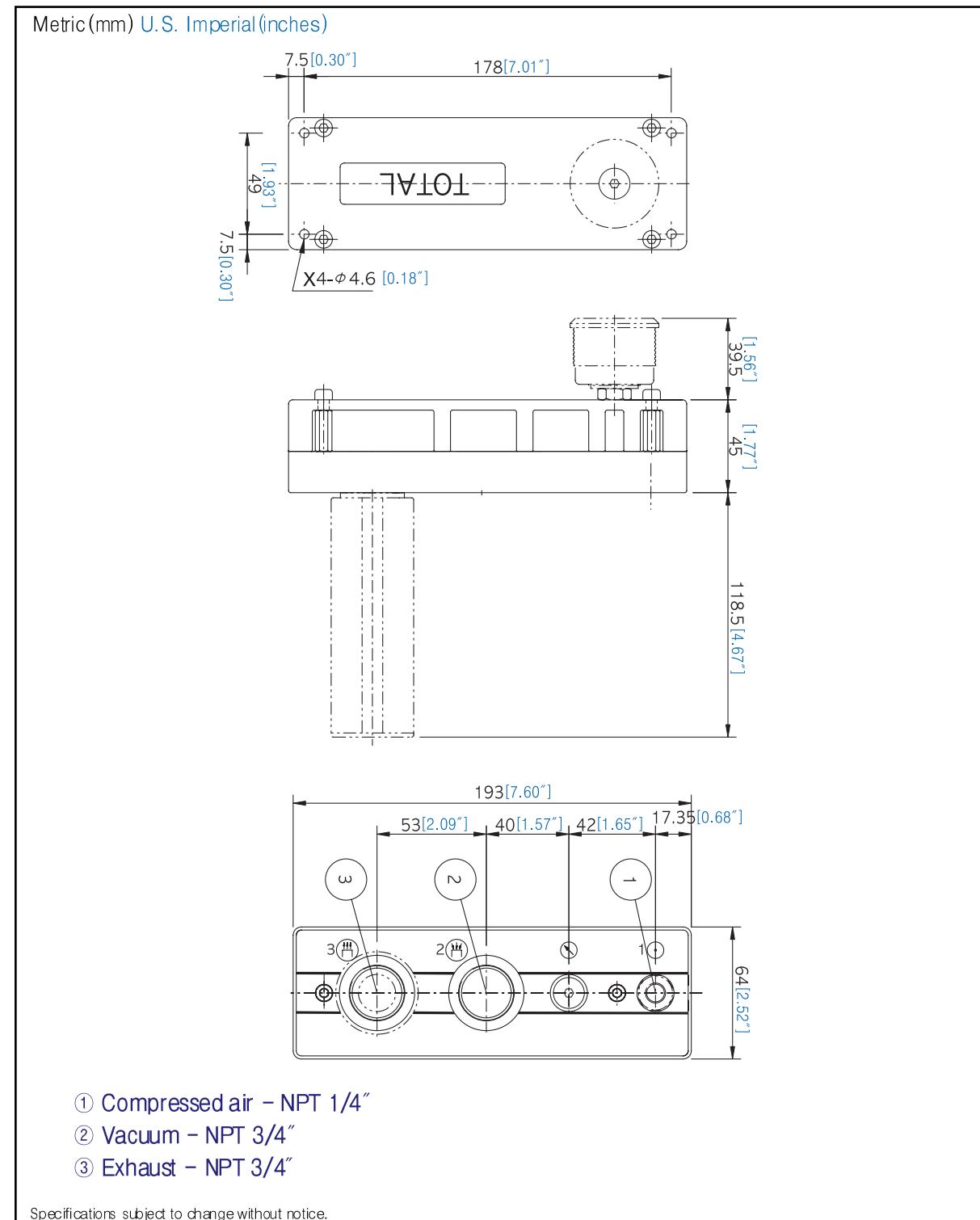
Time to evacuate a volume (sec/ ℓ) (sec/cf) at different vacuum levels (mmHg · G) (-inHg) (-kPa)

Pump Model	Vacuum Level	Evacuation Time (sec/ ℓ) (sec/cf)								
		0 0 0	75 2.95 10	150 5.91 20	225 8.86 30	300 11.81 40	375 14.76 50	450 17.72 60	525 20.67 70	600 23.62 80
TVL25	0	0.015 0.425	0.040 1.138	0.100 2.800	0.210 5.922	0.390 10.998	0.700 19.460	1.200 33.120	—	—
TVL50	0	0.008 0.113	0.020 0.569	0.050 1.400	0.120 3.384	0.210 5.922	0.400 11.120	0.600 16.56	—	—
TVL75	0	0.005 0.142	0.013 0.370	0.030 0.840	0.080 2.256	0.140 3.948	0.300 8.340	0.400 11.040	—	—
TVL100	0	0.004 0.113	0.010 0.285	0.025 0.700	0.060 1.692	0.100 2.820	0.160 4.448	0.300 8.280	—	—
TVL125	0	0.004 0.113	0.008 0.228	0.017 0.476	0.050 1.410	0.100 2.820	0.140 3.892	0.300 8.280	—	—
TVL150	0	—	0.007 0.199	0.015 0.420	0.040 1.128	0.080 2.256	0.120 3.336	0.180 4.968	—	—



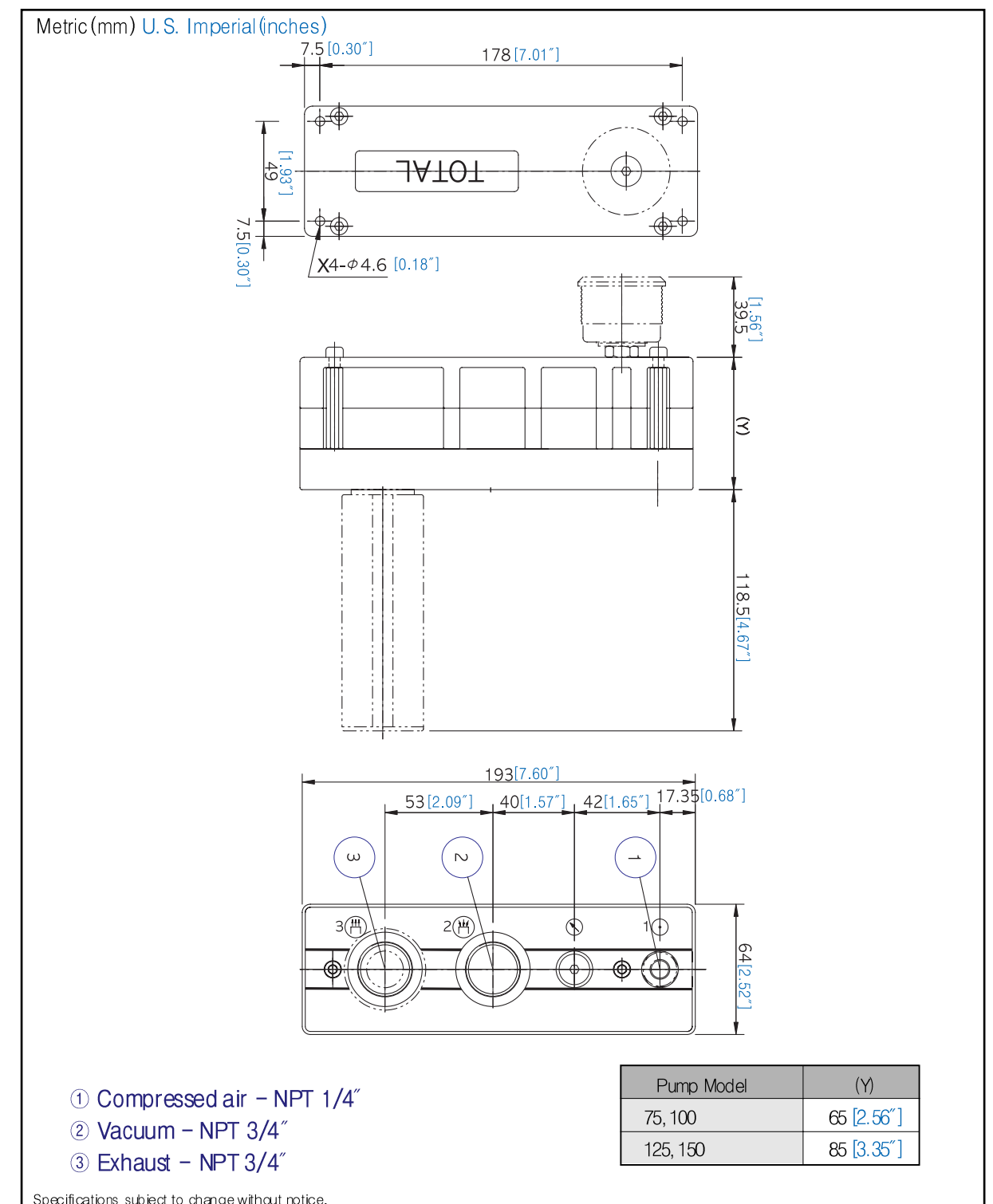
TVL25/50 SIZE

Dimension

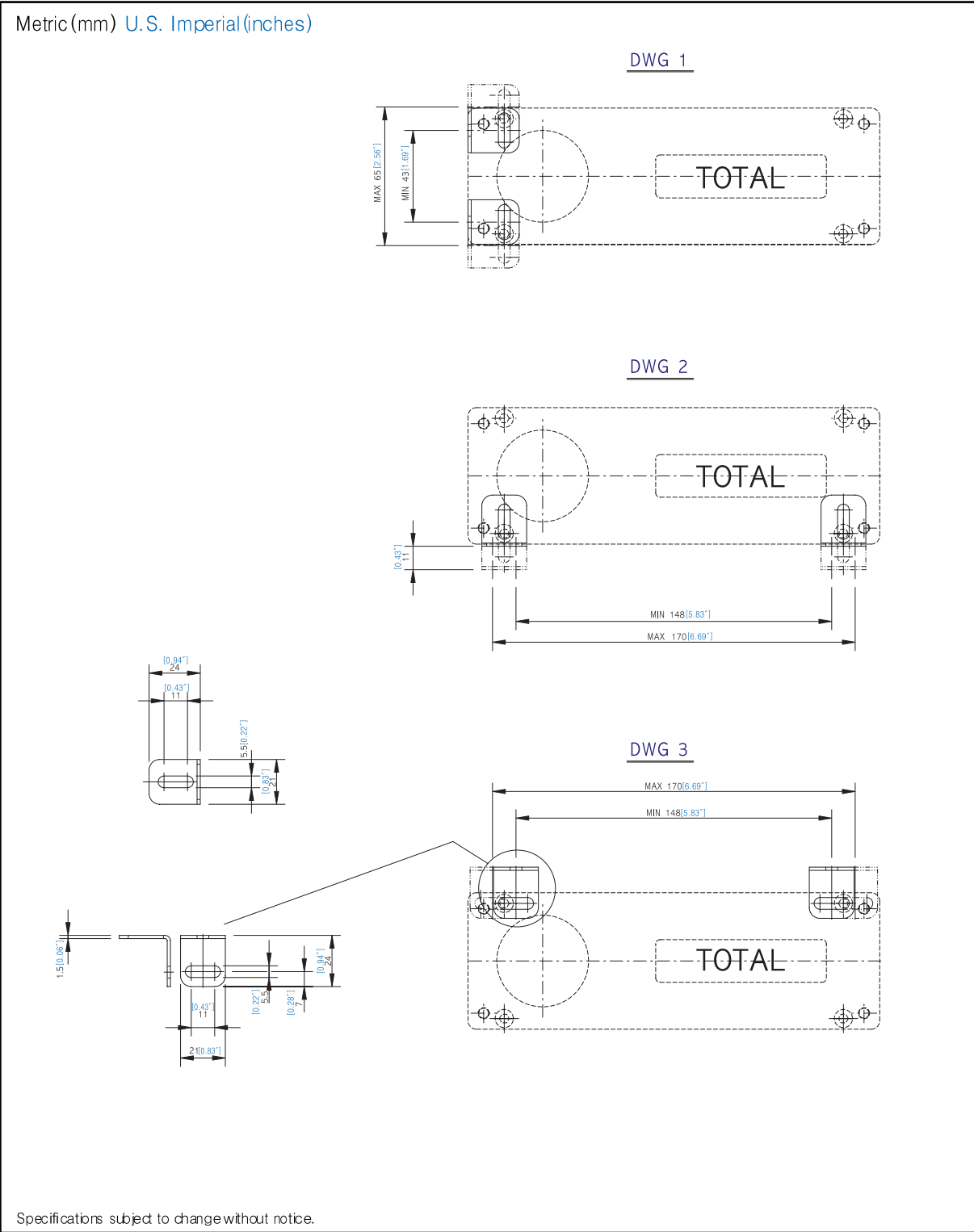


TVL75, 100, 125, 150 SIZE

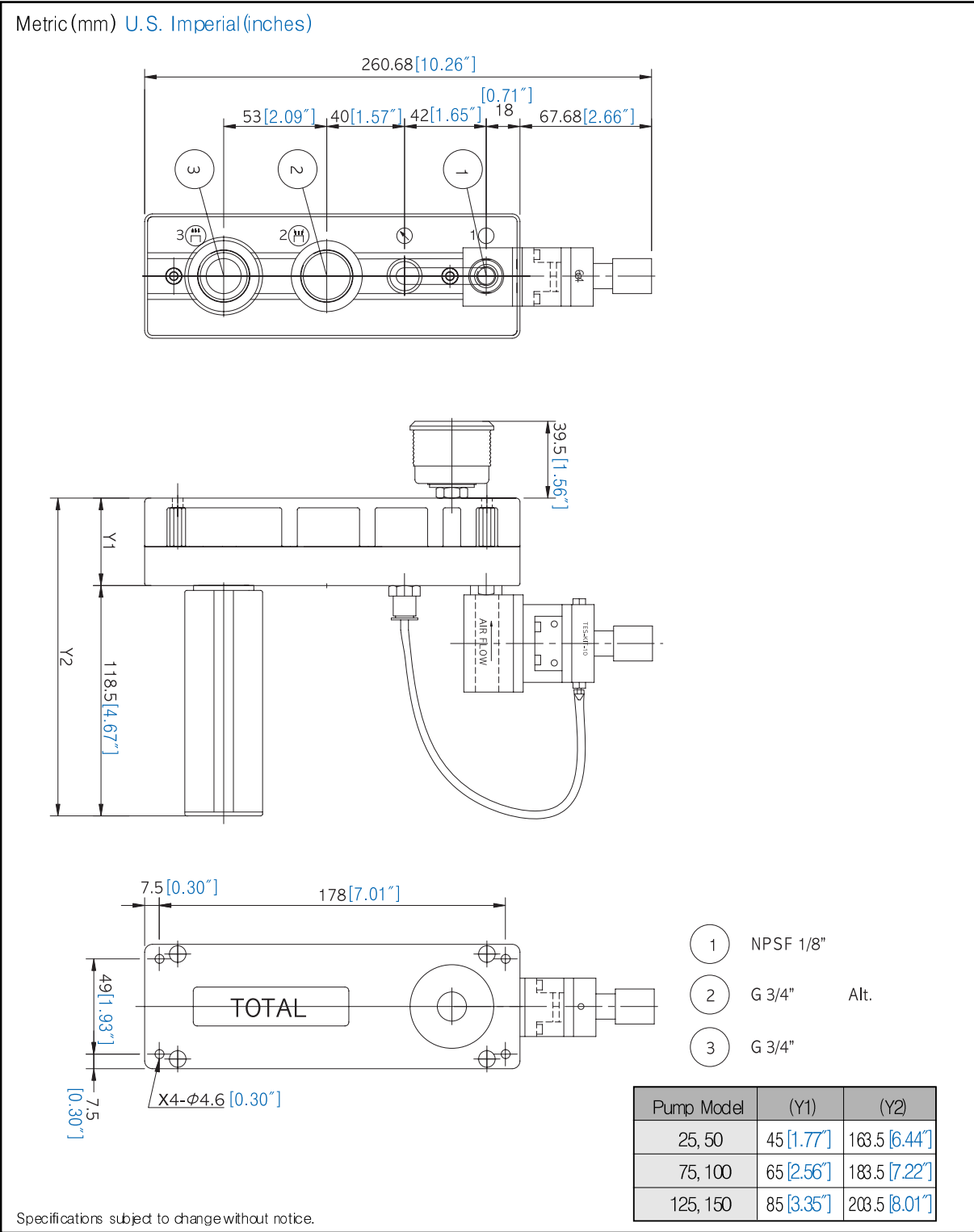
Dimension



Mounting style
Dimension



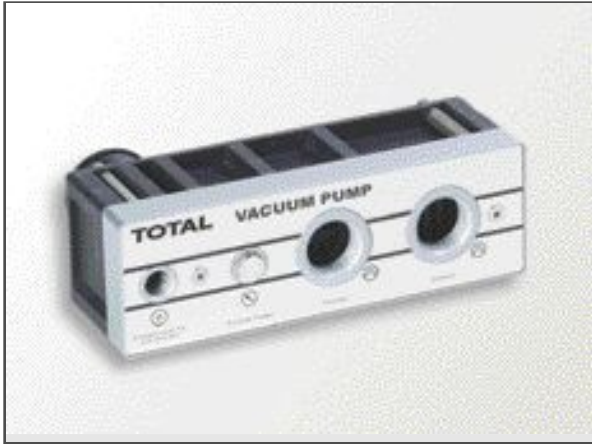
Energy Saving Kit
Dimension



7) TVM: Normal Medium Vacuum Standard Type

The most general type of air-driven vacuum pump with multi-stage ventury nozzle.
By using only 4~6.2 bar of compressed air, this can get up to -92 kPa of vacuum level.
Due to the recent technical development, the new model that can be maintain up to -92 kPa by 5.5 bar of compressed air, came out to the market.
With less compressed air than single-stage nozzle pump, can get more vacuum flow and save more air consumption by using "Energy Saving Kit".

Use of Application - vacuum lifting device (metal sheets, glasses, furniture, and various boards),
liquid filling M/C, vacuum clamp, vacuum packaging/palletizing, vacuum bearing, printing machine, etc.



Performance and Specifications Outline

Max. Vacuum Level	Max. 690.17 (mmHg.G) Max. -92 (kPa) Max. -27.17 (nHg)
Max. Vacuum Flow	Max. 326 ~ 1,724 (ℓ/min) Max. 11.511 ~ 60.876 (scfm)
Supply Air Condition	Compressed Air
Compressed Air Pressure	4 ~ 6.2 bar 58.01 ~ 89.92 psi
Working Temperature	-20 ~ +80 -4 ~ +176
Noise Level	60 ~ 65 dBA

Ordering information

TV	M	25, 50, 75, 100, 125, 150	-C5, C6	AP	N	-E.S
Manufacturer	Vacuum Level	Size of Vacuum Pump	Input Compressed Air of Pressure	Material of Pump Body	Material of Seal Kits	Energy Saving Kit & The Other Options
TOTAL Vacuum Pump	M: Medium	(MType)	Circulating Pressure	A: Aluminum	N: Nitrile	-E.S. Energy Saving Kit
	Max. 690.17 (mmHg.G)	25: Max. 326 (ℓ/min) 11.511 (scfm)		P: PPS	V: Viton	
	Max. -27.17 (nHg)	50: Max. 614 (ℓ/min) 21.681 (scfm)		AP: Al+PPS	E: EPDM	
	Max. -92 (kPa)	75: Max. 854 (ℓ/min) 30.155 (scfm)		PP: PPS+PPS		
		100: Max. 1,042 (ℓ/min) 36.794 (scfm)		AA: Al + Al		
		125: Max. 1,332 (ℓ/min) 47.034 (scfm)				
		150: Max. 1,724 (ℓ/min) 60.876 (scfm)				
			-C5: 4 ~ 5.8 (bar) 58.01 ~ 84.12 (psi)			
			-C6: 4 ~ 6.2 (bar) 58.01 ~ 89.92 (psi)			

TVM: Normal Medium Vacuum Standard Type

Characteristics / Medium Vacuum

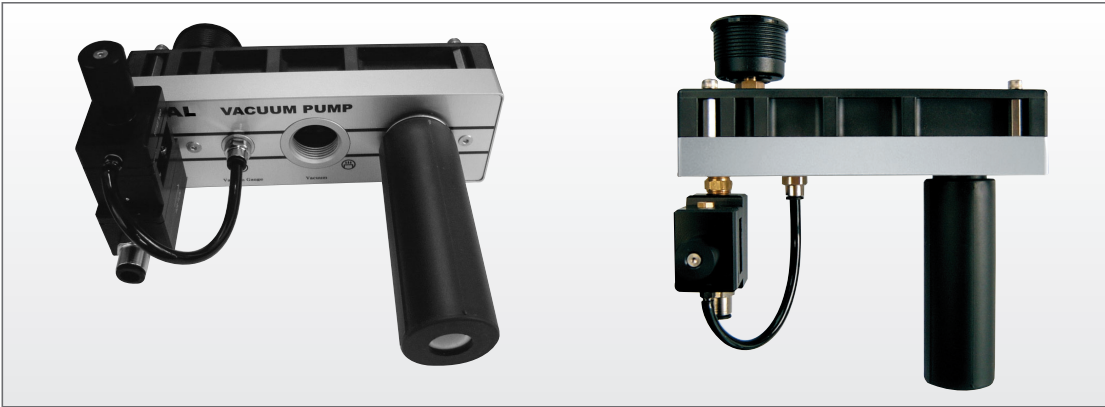
Pump Model	Max. Vacuum (mmHg · G) (-inHg) (-kPa)	Max. Vacuum Flow (N ℓ /min) (scfm)	Air Consumption (N ℓ /min) (scfm)	Noise Level (dBA)	Net Weight (g) (oz)	Pipe Arrangement (Ø)		
						Compressed Air (mm) (inches)	Vacuum (mm) (inches)	Exhaust (inches)
TVM25	685.5 26.99 91.4	326 11.511	75~105 2.648~3.708	60~65	645 22.749	≥4 0.16"	≥12 0.47"	G 3/4"
TVM50		614 21.681	150~208 5.297~7.345	60~65	651 22.961	≥6 0.24"	≥14 0.55"	G 3/4"
TVM75		854 30.155	232~330 8.192~11.653	60~65	847 29.874	≥8 0.32"	≥19 0.75"	G 3/4"
TVM100	679.5 26.75 90.6	1,042 36.794	300~415 10.583~14.654	60~65	853 30.085	≥8 0.32"	≥19 0.75"	G 3/4"
TVM125		1,332 47.034	376~544 13.277~19.209	60~65	1,049 36.998	≥8 0.32"	≥25 0.98"	G 3/4"
TVM150		1,724 60.876	448~637 15.819~22.493	60~65	1,055 37.210	≥10 0.39"	≥25 0.98"	G 3/4"

Vacuum flow in (N ℓ /min) (scfm) at different vacuum levels (mmHg · G) (-inHg) (-kPa)

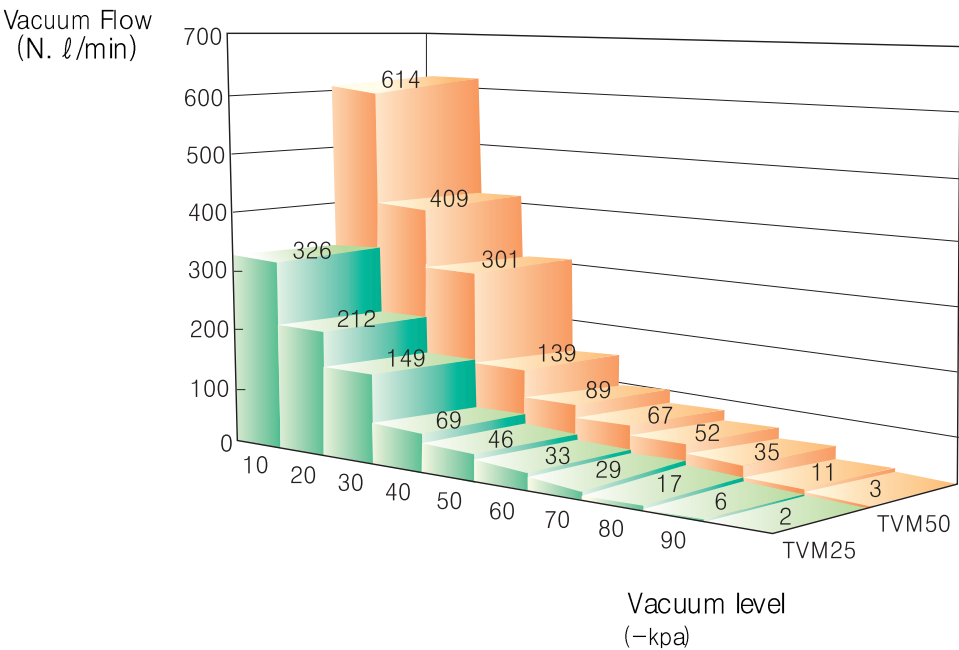
Pump Model	Vacuum Level	Vacuum Flow (N ℓ /min) (scfm)									
		0 0 0	75 2.95 10	150 5.91 20	225 8.86 30	300 11.81 40	375 14.76 50	450 17.72 60	525 20.67 70	600 23.62 80	675 26.57 90
TVM25		326 11.511	212 7.486	149 5.261	69 2.436	46 1.624	33 1.165	29 1.024	17 0.600	6 0.212	2 0.071
TVM50		614 21.681	409 14.442	301 10.629	139 4.908	89 3.143	67 2.366	52 1.836	35 1.236	11 0.388	3 0.106
TVM75		854 30.155	516 18.220	425 15.007	192 6.780	131 4.626	98 3.460	77 2.719	52 1.836	16 0.565	5 0.177
TVM100		1,042 36.794	775 27.366	520 18.362	264 9.322	172 6.073	110 3.884	88 3.107	64 2.260	21 0.742	6 0.212
TVM125		1,332 47.034	914 32.274	822 29.025	392 13.842	217 7.662	162 5.720	143 5.049	88 3.107	27 0.953	6 0.212
TVM150		1,724 60.876	1,042 36.794	891 31.462	427 15.078	299 10.558	204 7.203	169 5.968	94 3.319	34 1.201	7 0.247

Time to evacuate a volume (sec/ ℓ) (sec/cf) at different vacuum levels (mmHg · G) (-inHg) (-kPa)

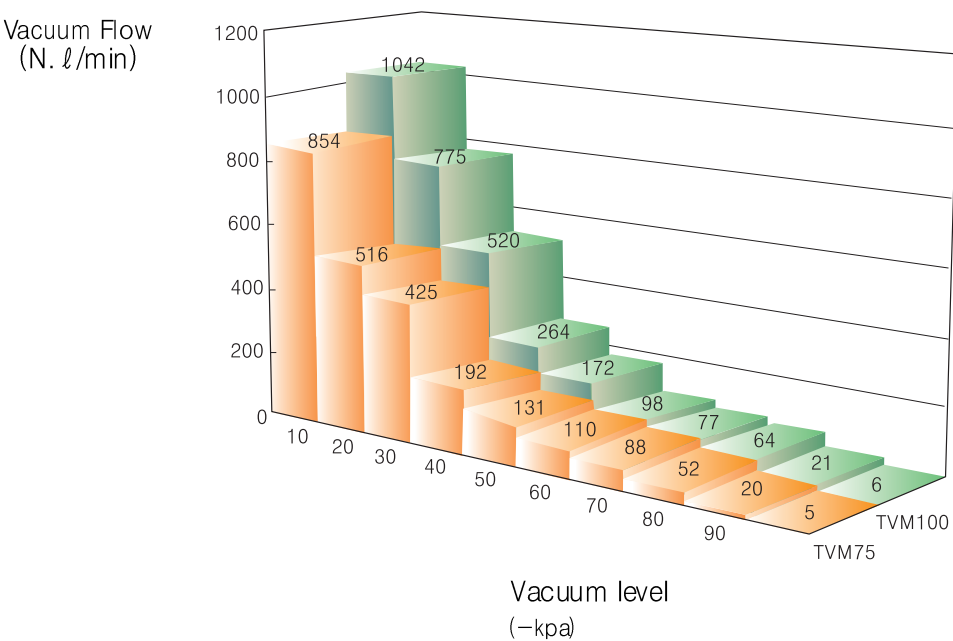
Pump Model	Vacuum Level	Evacuation Time (sec/ ℓ) (sec/cf)									
		0 0 0	75 2.95 10	150 5.91 20	225 8.86 30	300 11.81 40	375 14.76 50	450 17.72 60	525 20.67 70	600 23.62 80	675 26.57 90
TVM25	0	0	0.015 0.425	0.050 1.415	0.132 3.696	0.240 6.768	0.480 13.536	0.760 21.128	1.190 32.844	1.940 54.708	5.270 149.405
TVM50	0	0	0.012 0.340	0.030 0.854	0.071 1.988	0.140 3.948	0.240 6.768	0.370 10.286	0.580 16.008	0.980 27.636	2.740 77.679
TVM75	0	0	0.006 0.170	0.016 0.455	0.034 0.952	0.080 2.256	0.154 4.343	0.292 8.118	0.400 11.040	0.631 17.794	1.720 48.762
TVM100	0	0	0.006 0.170	0.020 0.569	0.037 1.036	0.071 2.002	0.128 3.610	0.184 5.115	0.312 8.611	0.508 14.326	1.395 39.548
TVM125	0	0	0.005 0.142	0.011 0.313	0.023 0.644	0.057 1.607	0.096 2.707	0.145 4.031	0.219 6.044	0.410 11.562	1.144 32.432
TVM150	0	0	0.004 0.113	0.009 0.256	0.024 0.672	0.048 1.354	0.079 2.228	0.122 3.392	0.194 5.354	0.388 10.942	0.899 25.487



Experimental Performance Curve

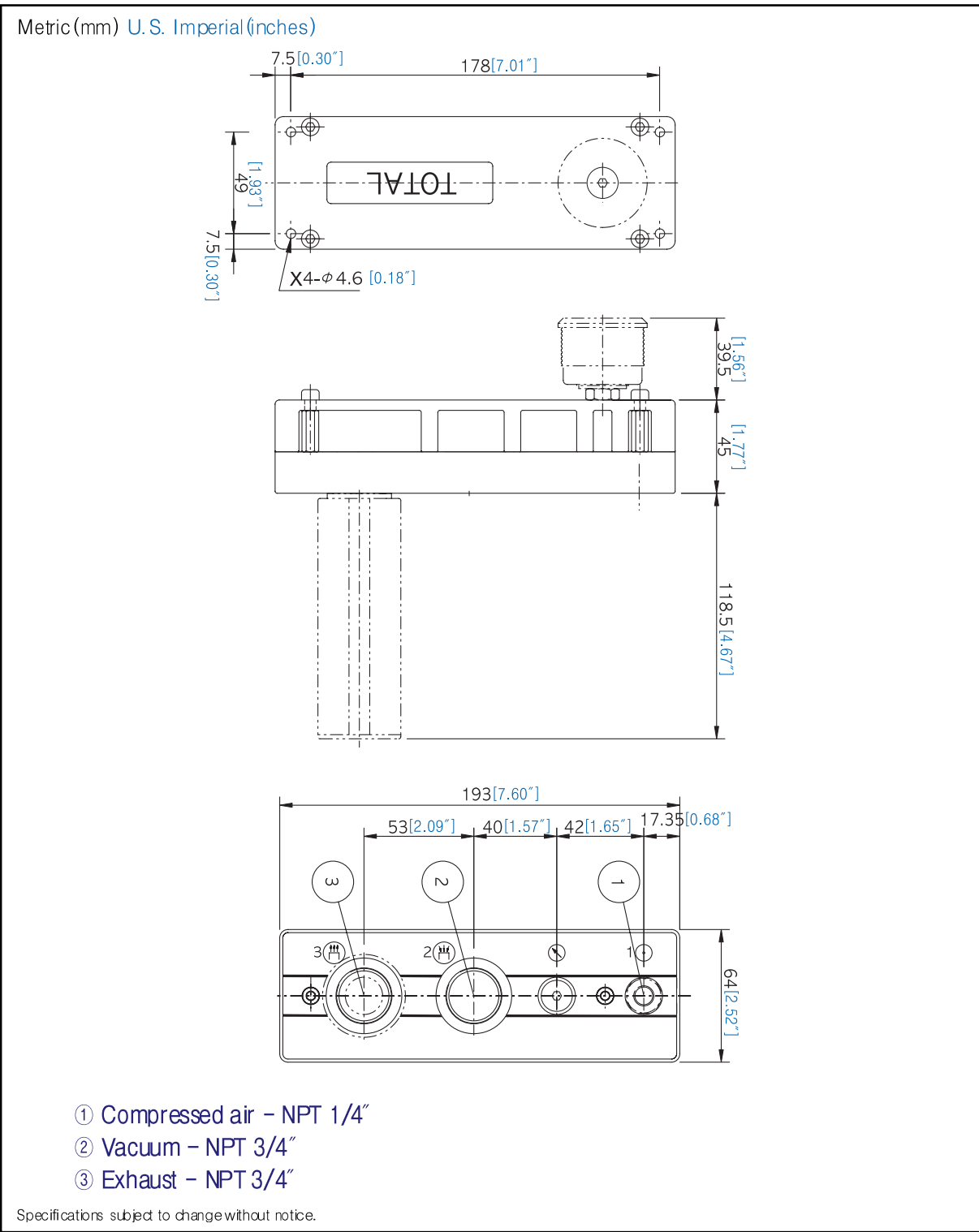


Experimental Performance Curve



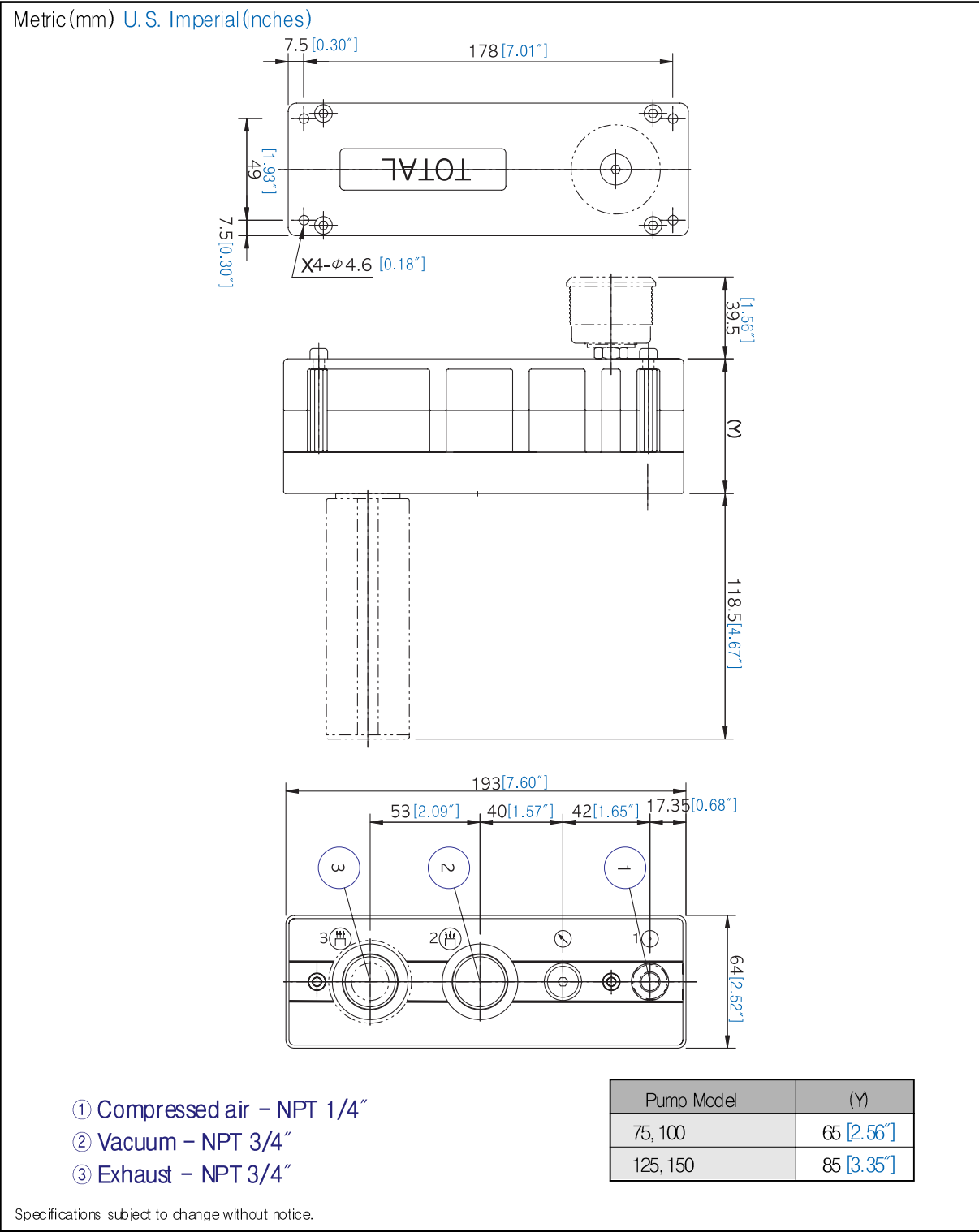
TVM 25/50 SIZE

Dimension



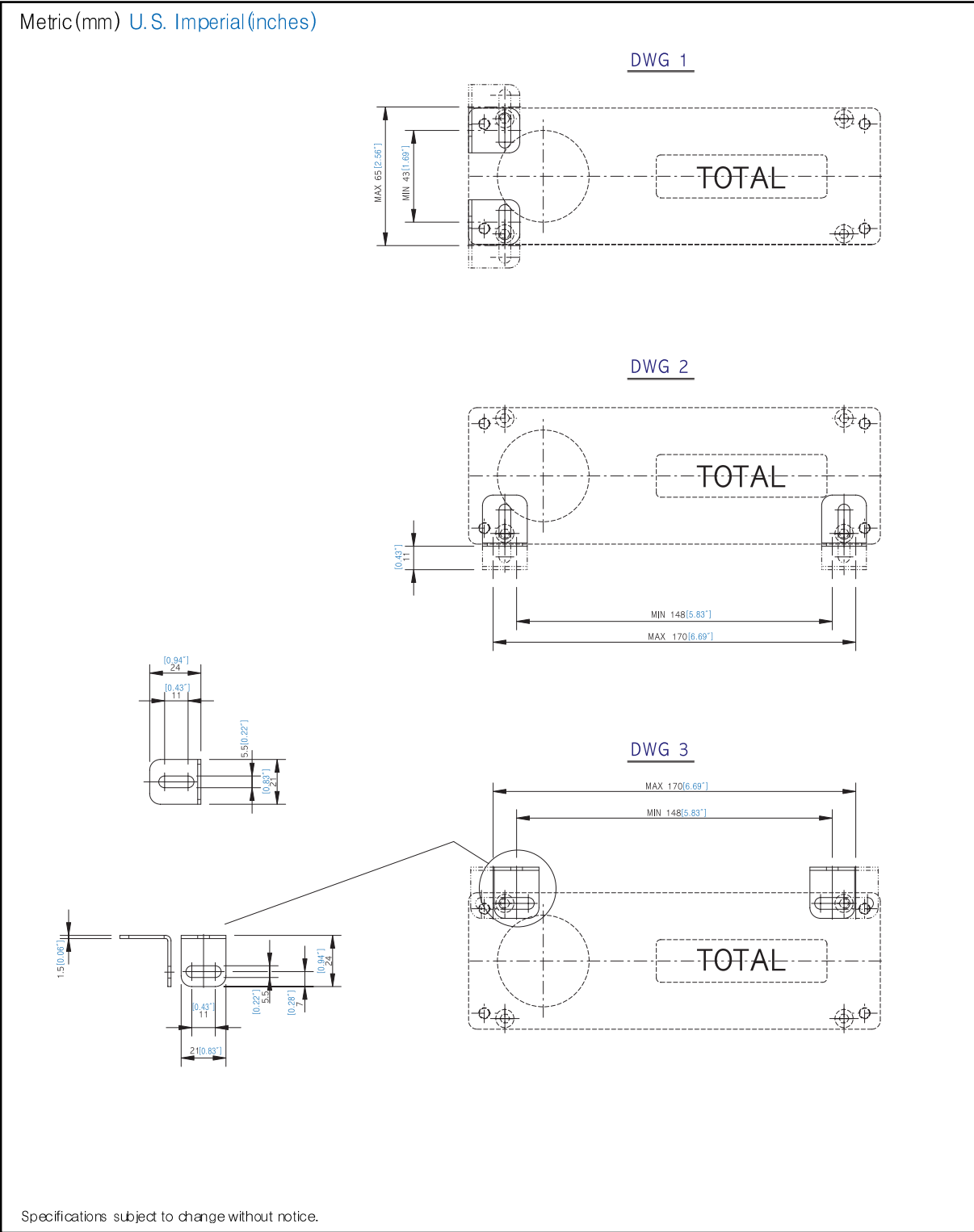
TVM 75, 100, 125, 150 SIZE

Dimension

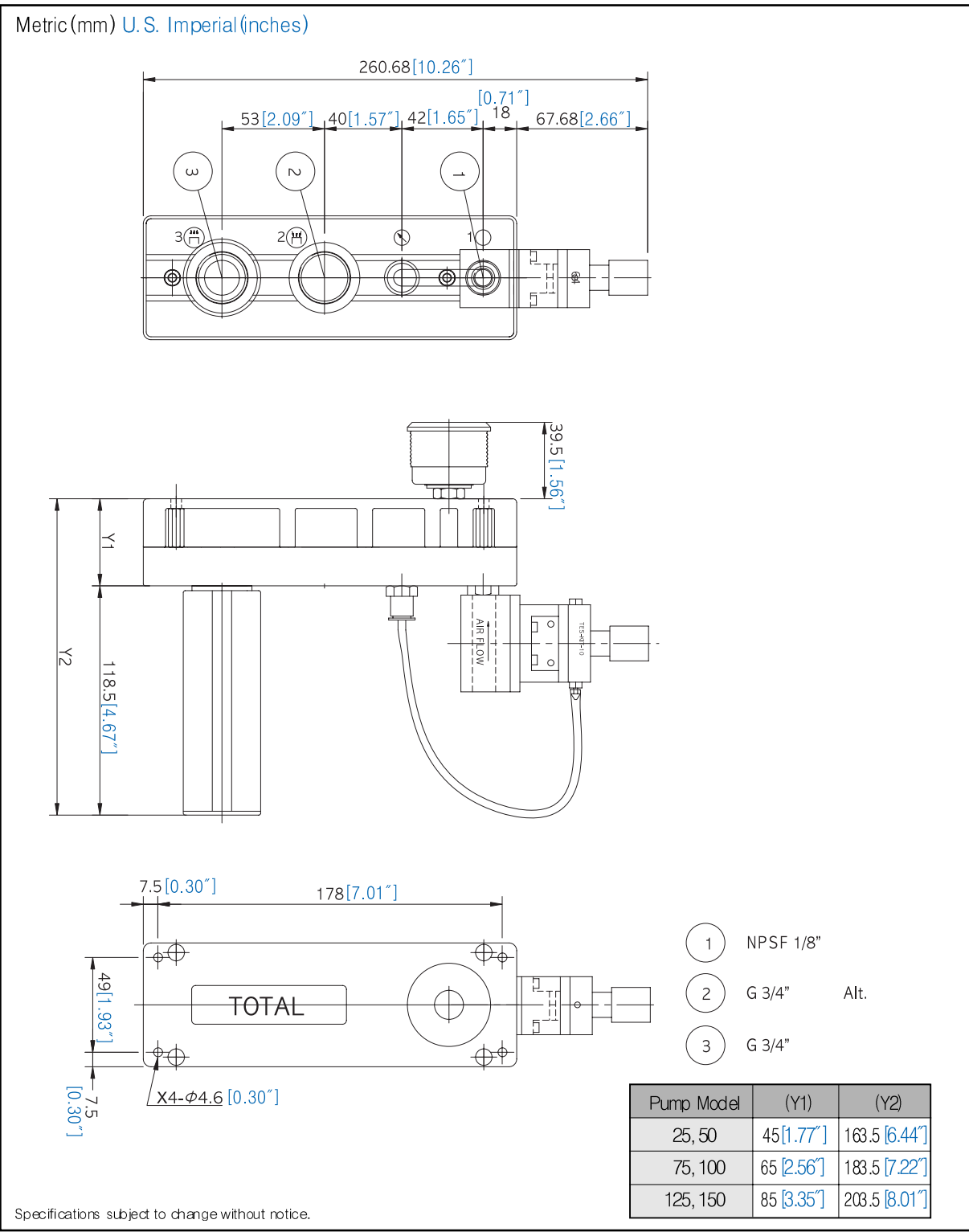


Mounting style

Dimension



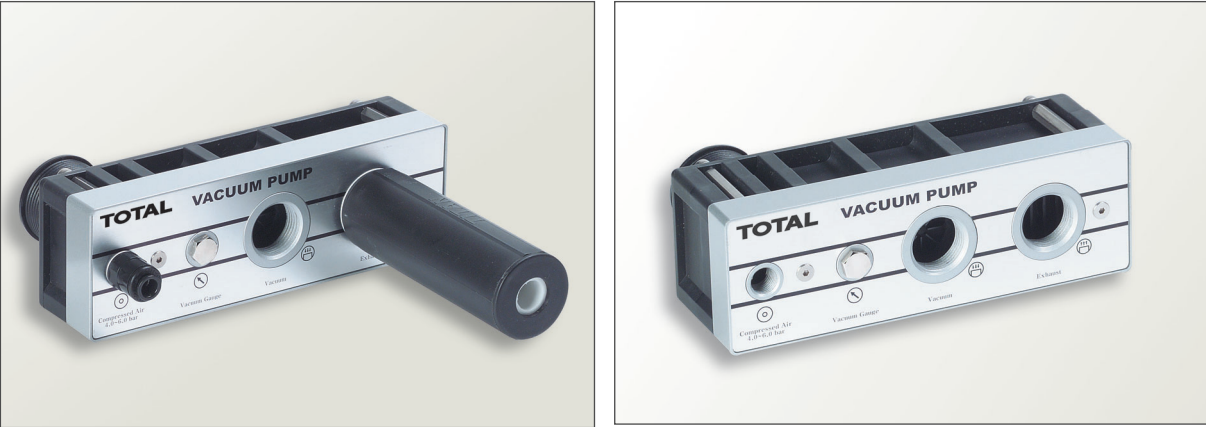
Energy Saving Kit
Dimension



8) TVH: Normal High Vacuum Standard Type

Air-driven vacuum pump with multi-stage ventury nozzle of low vacuum & high flow.
By using only 4~7 bar, this realizes up to -100.8 kpa of high vacuum level.
Can replace and be compatible with most of electric motor-driven pumps .

► Use of Application – laboratory vacuum reactor, degassing process, semiconductor manufacturing reactor, gel Drying, high purified plastic molding

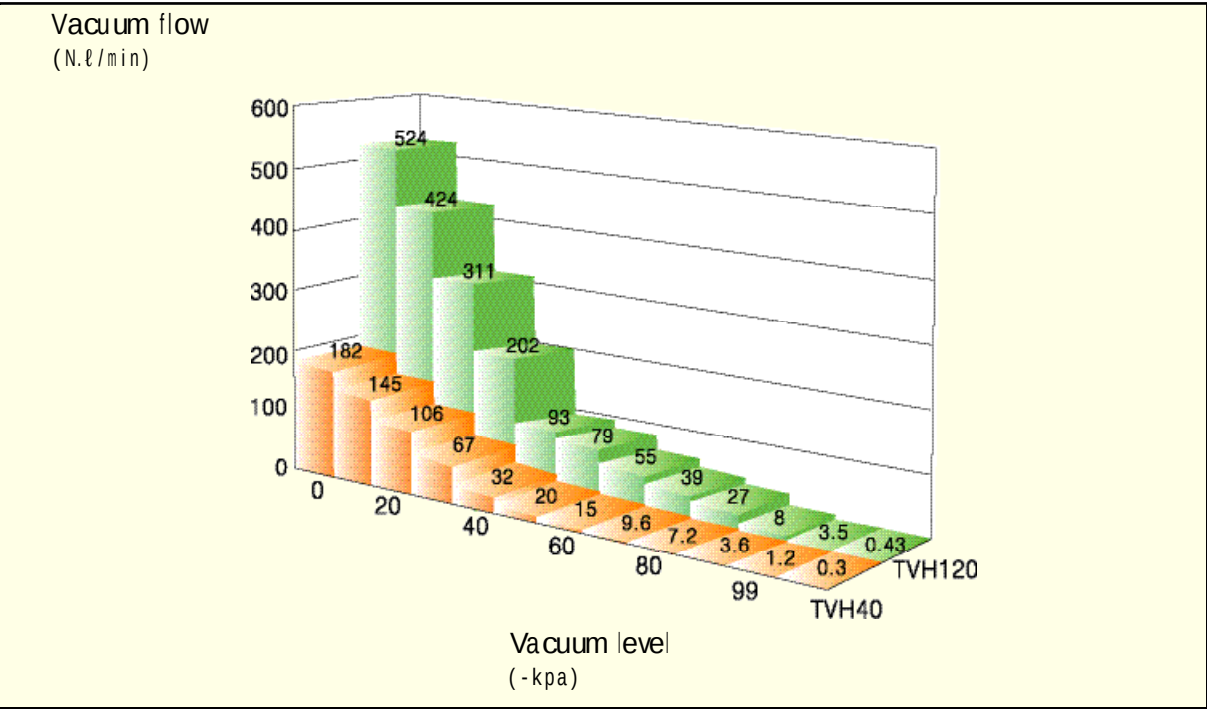


Performance and Specifications Outline

Max. Vacuum Level	Max. 756.19 (mmHg.G) Max. -100.8 (kPa) Max. -29.77(inHg)
Max. Vacuum Flow	Max. 524 (ℓ/min) Max. 18.503 (scfm)
Supply Air Condition	Compressed Air
Compressed Air Pressure	4~7 bar 58.01~101.53 psi
Working Temperature	-20℃~+80℃ -4°F~+176°F
Noise Level	58~70 dBA

Ordering information

TV	H	40,120	-C6	AP	N	-E.S
Manufacturer	Vacuum Level	Size of Vacuum Pump	Input Compressed Air of Pressure	Material of Pump Body	Material of seal kits	Energy Saving Kit & The Other Options
TOTAL Vacuum Pump	H: High Vacuum	40:	Circulating Pressure	A: Aluminum	N: Nitrile	-E.S: Energy Saving Kit
	Max. 748.69~750.19 (mmHgG)	Max. 182 (ℓ/min)	-C6:	P: PPS	V: Viton	(SW: Switch Cut-Off VV, Check VV, Vacuum Release VV)
	Max. -29.47~-29.53 (inHg)	Max. 6.427 (scfm)	4~6.2 (bar)	AP: Al+PPS	E: EPDM	
	Max. -99.8~-100 (kPa)	120: Max. 524 (ℓ/min)	58.01~89.92 (psi)	PP: PPS+PPS		
		Max. 18.503 (scfm)		AA: Al + Al		



TVH: Normal Medium High Vacuum Level Type
Characteristics / High Vacuum

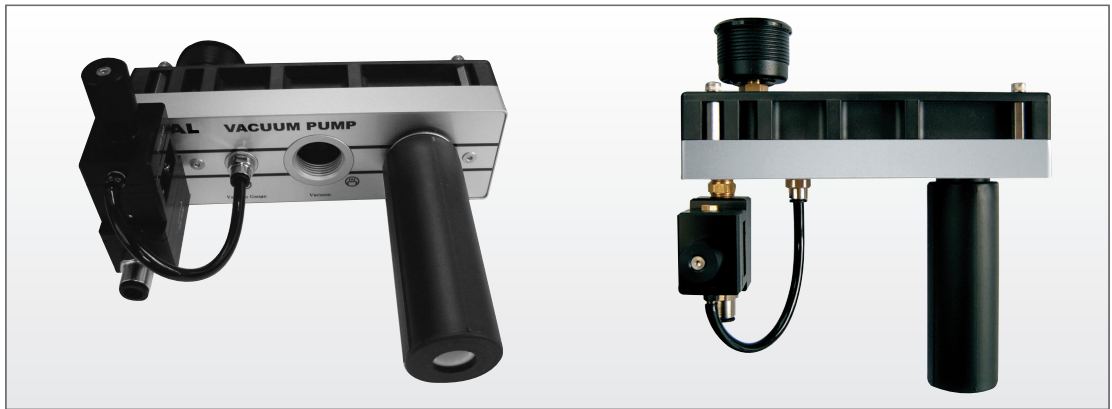
Pump Model	Max. Vacuum (mmHg · G) (- inHg) (- kPa)	Max. Vacuum Flow (Nℓ/min) (scfm)	Air Consumption (Nℓ/min) (scfm)	Noise Level (dBA)	Net Weight (g) (oz)	Pipe Arrangement (Ø)		
						Compressed Air (mm) (inches)	Vacuum (mm) (inches)	Exhaust (inches)
TVH40	748.5 29.47 99.8	182 6.427	158 5.579	58~65	645 22.749	>6 0.24"	G 3/4"x1	3/4"
TVH120	756 29.76 100.80	524 18.503	459 16.208	58~65	853 30.085	>8 0.31"	G 3/4"x1	3/4"

Vacuum flow in (N ℓ/min) (scfm) at different vacuum levels (mmHg · G) (- inHg) (- kPa)

Pump Model	Vacuum Level	Vacuum Flow (N ℓ/min) (scfm)													
		0 0	75 2.95 10	150 5.91 20	225 8.86 30	300 11.81 40	375 14.76 50	450 17.72 60	525 20.67 70	600 23.62 80	675 26.57 90	712.5 28.05 95	742.5 29.23 99	746.2 29.38 99.5	752.2 29.61 103.3
TVH40		182 6.427	145 5.120	106 3.743	67 2.366	32 1.130	20 0.706	15 0.530	9.6 0.339	7.2 0.254	3.6 0.127	1.2 0.042	0.3 0.011	0.1 0.004	0.05 0.000
TVH120		524 18.503	424 14.972	311 10.982	202 7.133	93 3.284	79 2.790	55 1.942	39 1.377	27 0.953	8 0.282	3.5 0.124	0.43 0.015	0.2 0.007	0.1 0.004

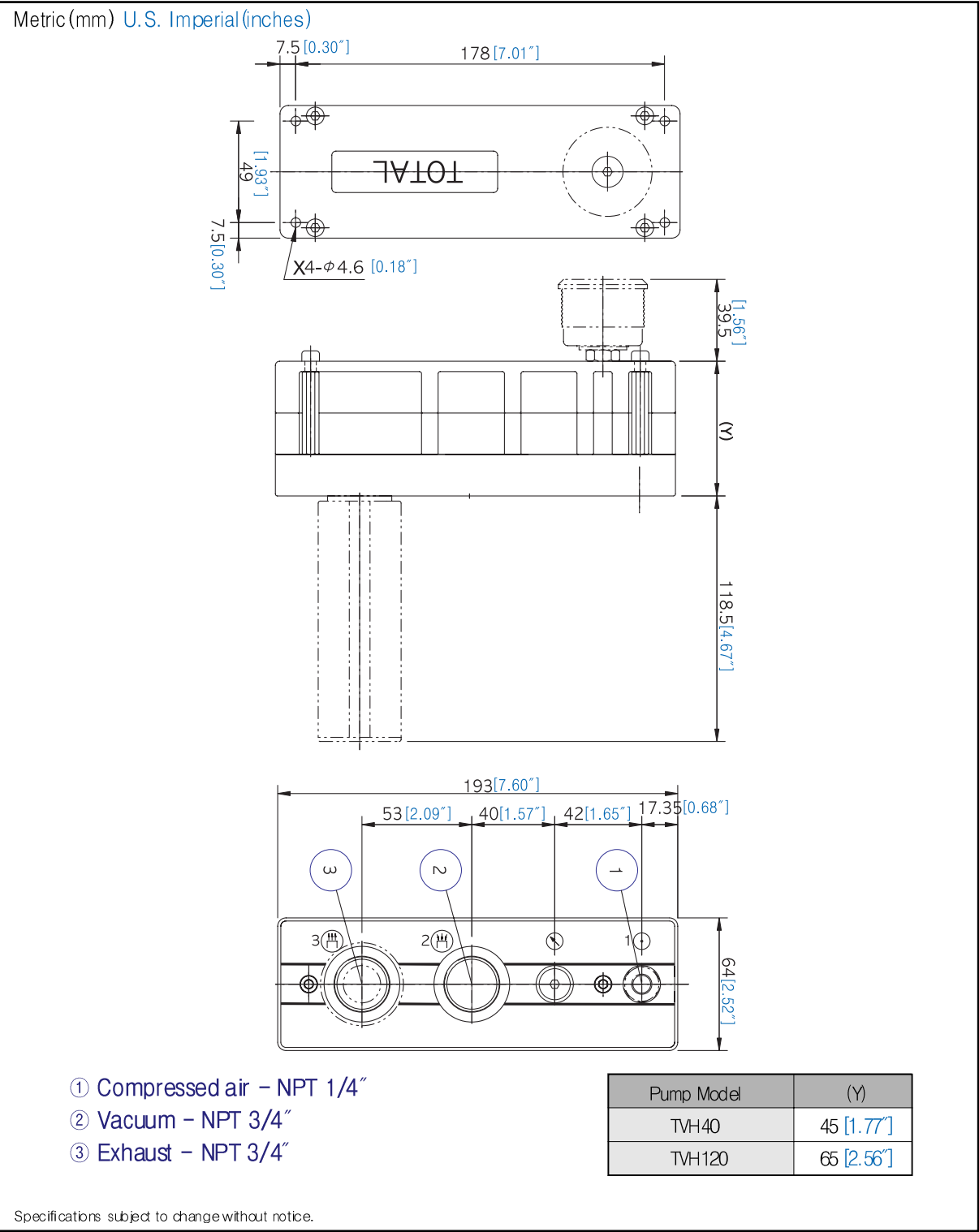
Time to evacuate a volume (sec/ℓ) (sec/cf) at different vacuum levels (mmHg · G) (-inHg) (-kPa)

Pump Model	Vacuum Level	Evacuation Time (sec/ℓ) (sec/cf)													
		0	75	150	225	300	375	450	525	600	675	712.5	742.5	746.2	752.2
		0	2.95	5.91	8.86	11.81	14.76	17.72	20.67	23.62	26.57	28.05	29.23	29.38	29.61
		0	10	20	30	40	50	60	70	80	90	95	99	99.5	103.3
TVH40	0	0.034	0.074	0.140	0.260	0.570	0.930	1.480	2.400	3.600	5.520	9.400	12.500	16.300	
		0.962	2.105	3.920	7.332	16.074	25.854	40.848	67.680	102.06	154.56	266.020	353.75	461.29	
TVH120	0	0.012	0.026	0.058	0.100	0.180	0.300	0.450	0.660	1.240	1.870	3.500	4.220	6.500	
		0.340	0.740	1.624	2.820	5.076	8.340	12.420	18.612	35.154	52.36	99.050	119.426	183.95	



TVH40, 120 SIZE

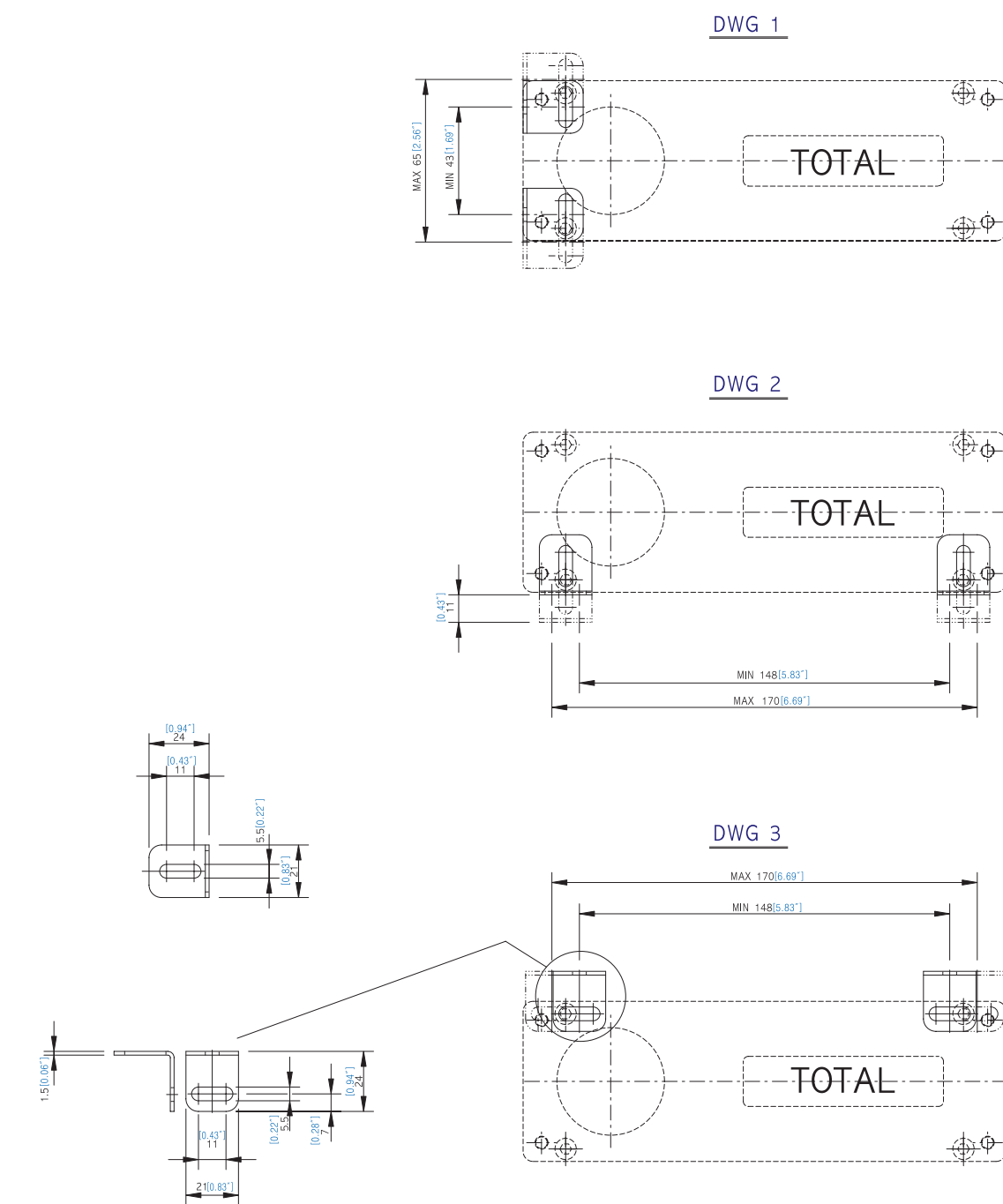
Dimension



Mounting style

Dimension

Metric (mm) U.S. Imperial (inches)



Specifications subject to change without notice.

9) T2MM: High Flow Medium Vacuum Type

10) T2MX: High Flow Extra Vacuum Type

MM type: Air-driven vacuum pump with standard type of multi-stage nozzle, put together on the large size of duplex base chamber to satisfy both of -91 kPa of vacuum level and high vacuum flow. This is used easily in the process which requires high vacuum flow.

MX type: Air-driven vacuum pump with extra vacuum type of multi-stage nozzle, put together on the large size of duplex base chamber to satisfy both of -96 kPa of vacuum level and high vacuum flow. This is used easily in the process which requires extra vacuum level and a large size of pumping. cf. possible to be joined up to 2,574 (Nℓ /min) of max. vacuum flow.



T2MM & T2MX
Identical Specification,
Different Vacuum Level

Performance and Specifications Outline

	MM Type	MX Type
Max. Vacuum Level	Max. 682.67 (mmHg.G) Max. -26.88 (inHg) Max. -91 (kPa)	Max. 720.18 (mmHg.G) Max. -28.35 (inHg) Max. -96 (kPa)
Max. Vacuum Flow	Max. 2,574 (ℓ /min) Max. 90.890 (scfm)	Max. 880 (ℓ /min) Max. 31.073 (scfm)
Supply Air Condition	Compressed Air	Compressed Air
Supply Air Pressure	4~6.2 bar 58.01~89.92 psi	4.8~7 bar 69.62~101.53 psi
Working Temperature	-20℃~+80℃ -4°F~+176°F	-20℃~+80℃ -4°F~+176°F
Noise Level	65~78 dBA	65~72 dBA