

### Engineering Supplement

#### SWSI CB/CBA Torque Requirements (in-lb)

FAN SIZE	NESTED INLET VANES				EXTERNAL INLET VANES			
	CL 1	CL 2	CL 3	CL 4	CL 1	CL 2	CL 3	CL 4
122	N/A	N/A	N/A	N/A	100	100	100	100
135	N/A	N/A	N/A	N/A	100	100	100	110
150	N/A	N/A	N/A	N/A	100	100	100	140
165	100	100	100	130	100	100	130	170
182	100	100	120	160	100	100	150	210
200	100	100	140	190	100	110	180	250
222	100	110	180	240	100	140	230	300
245	100	130	210	290	100	170	280	370
270	100	160	260	350	130	210	340	450
300	120	200	320	430	160	260	410	550
330	150	240	390	520	190	310	500	670
365	180	300	480	640	230	380	610	820
402	220	360	580	770	280	460	750	1000
445	260	440	710	950	340	570	910	1220
490	320	530	860	1150	410	690	1110	1480
542	390	650	1050	1400	510	840	1780	2380
600	480	800	1280	1720	820	1360	2180	2920
660	580	970	1550	2080	990	1640	2640	3530
730	710	1190	2290	3060	1210	2010	3230	4320
807	1050	1750	2800	3750	N/A	N/A	N/A	N/A
890	1280	2120	3410	4550	N/A	N/A	N/A	N/A
982	1550	2590	4150	5550	N/A	N/A	N/A	N/A

#### DWDI CB/CBA Torque Requirements (in-lb)

FAN SIZE	NESTED INLET VANES			
	CL 1	CL 2	CL 3	CL 4
165	100	120	200	260
182	100	140	240	320
200	100	180	280	380
222	140	220	360	480
245	160	260	420	580
270	200	320	520	700
300	240	400	640	860
330	300	480	780	1040
365	360	600	960	1280
402	440	720	1160	1540
445	520	880	1420	1900
490	640	1060	1720	2300
542	780	1300	2100	2800
600	960	1600	2560	3440
660	1160	1940	3100	4160
730	1420	2380	4580	6120
807	2100	3500	5600	7500
890	2560	4240	6820	9100
982	3100	5180	8300	—

#### Industrial Torque Requirements (in-lb)

FAN SIZE	EXTERNAL INLET VANES		
	CL 18/20	CL 23/24	CL 18/20
913	120	170	240
915	170	230	330
917	210	290	420
919	260	360	520
921	320	440	630
923	390	530	760
926	490	680	970
929	620	850	1220
933	800	1100	1580
937	1000	1380	1970
941	1230	1690	3180
945	1480	2680	3840
949	2320	3180	4560
954	2800	3840	5510
960	3470	4750	6810

#### NOTES:

- Standard length of the handle supplied by Aerovent is 10". The force required to operate inlet vane is:  

$$\frac{\text{Torque in In-Lb}}{\text{Length of Lever}}$$
- For sizing actuator, multiply above torque by 1.2 for rotary and 1.5 for linear actuators.