AXIAL FLOW FANS COMPONENT WEIGHTS

Detailed below are the weights of the components that make up various products, the details have been broken up as follows: -

Housing/Casing Weights

- *Table 1.* - Single stage axial flow fans – AP, APS, APH, APEC & APPM
- *Table 2.* - Belt driven axial flow fans – APB
- *Table 3.* - Bifurcated axial flow fans – BFA
- *Table 4.* - Square plate axial flow fans – SQA & SQB
- *Table 5.* - Alpha/Beta Industrial roof units – RVLE, RSSL, RDLE & RDLS
- *Table 6.* - New Generation roof units – RVE, RSS, RDE, RDS
- *Table 7.* - High Capacity and Smoke Spill roof units – HC & SS

Impeller Weights

- *Table 8.* – impeller weights from 315 to 2000mm diameter

Motor Weights

- *Table 9.* – motor weights

Ancillary Equipment Weights

- *Table 10.* – ancillary equipment weights

Note:- refer to Fantech for any fan/motor combination not listed including guidevanes.

Example

To determine the weight of an AP Series axial flow fan - 1400mm diameter, 6 pole with 9 blade aluminium impeller 400 dia. hub and 30kW motor.

1. Casing weight, Table 1. for D225M motor frame	256
2. 9 blade impeller weight, Table 8.	53
3. 30kW, 16 rev/sec motor Frame Size D225M, Table 9.	330
4. 2 Matching Flanges & 2 Mounting Feet Table 10.	73.6
	713kg

Reminder Note: As motor weights can vary by a factor of 1.5:1 from one manufacturer to another, please check with our Sales Engineers if the unit weight is critical to the building design.

HOUSING/CASING WEIGHTS



Table 1.

AP, APS, APH, APEC & APPM Series - single stage axial flow fans
AP..CR Series - single stage × 2

Model AP, APS, APH, APEC & APPM	Motor Frame Size D80/ D90	D100/ D112	D132	D160/ D180	D200	D225	D250	D280
031	10	15						
040	13	18						
050	16	23						
056	19	27	31					
063	22	30	34					
071	26	35	39					
080	29	40	44	57				
100	47	64	69	89				
125			88	172	209	227	239	283
140			99	193	235	256	269	319
160			113	221	270	294	310	367
180			235	292	347	374	392	457
200			261	325	386	417	437	510



Table 2.

APB Series - belt driven axial flow fans

Model APB	Motor Frame Size D80/ D90	D100/ D112	D132	D160/ D180	D200/225 D250
031	14	26			
040	17	30			
050	20	35			
056	23	39	43		
063	26	42	46		
071	30	48	51		
080	33	55	56	86	
100			81	118	
125			98	200	296
140			110	225	325
160			125	250	370
180			247	321	455
200			273	354	506



Table 3.

BFA Series - bifurcated axial flow fans

Model BFA	Motor Frame Size D80/ D90	D100/ D112	D132	D160/ D180	D200/ D225
040	26				
050	32				
056	36	44	47		
063	41	48	52		
071	47	56	59		
080	53	66	66		
100	83	98	103		278
125		122	128	171	346



Table 4.

SQA & SQB Series - square plate axial flow fans

Model SQA & SQB	Motor Frame Size D80/ D90	D100/ D112	D132	D160/ D180
031	11	12		
040	14	15		
050	17	20		
056	21	23	29	
063	23	26	36	44
071	26	29	40	49
080	31	38	46	57
100	50	56	72	87
125		72	91	111



Table 5.

RVLE, RSSL, RDLE & RDLS
Alpha/Beta Industrial axial flow roof units

Model RVLE,RSSL, RDLE & RDLS	Motor Frame Size D80/ D90	D100/ D112	D132	D160/ D180	D200/ D225
050	39	41			
056	39	41			
063	49	51			
071	49	51			
080	66	68	71		
100		90	94		

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Table 6.

RVE, RSS, RDE & RDS - New Generation axial flow roof units

Model RDE/S & RVE/SS	Motor Frame Size D80/ D90	D100/ D112	D132	D160/ D180	D200/ D225
031	20	25			
040	28	33			
050	38	44			
056	38	47	47	59	
063	55	63	63	78	
071	57	67	67	82	
080	71	85	86	100	
100	106	123	128	148	253
125	153	174	174	282	338



Table 7.

HC & SS Series - High Capacity & Smoke Spill axial flow roof units

Model HC & SS	Motor Frame Size D80/ D90	D100/ D112	D132	D160/ D180	D200	D225	D250	D280
050	38	45						
056	40	47	51	60				
063	54	62	67	77				
071	60	69	73	84				
080	70	84	85	99				
100		122	127	147	238	252		
125		154	161	262	300	328		
140			192	310	350	371	384	435
160			227	362	410	433	449	508
180			361	418	473	500	518	583

ANCILLARY EQUIPMENT WEIGHTS

Table 10.

Approximate ancillary equipment weights

Fan Dia. mm	Matching Flanges kg, each	Mounting Feet kg, each	Inlet Cones No Guard	Inlet Cones With Guard	Wire Guards kg, each
315	0.7	0.6	2.5	3.6	1.1
400	1.0	1.0	4.5	6.1	1.6
500	1.3	1.6	6.2	8.4	2.2
560	1.4	2.1	7.5	10.0	2.5
630	1.6	2.5	9.0	11.6	2.6
710	4.7	2.7	11.1	14.3	3.2
800	5.2	3.2	14.4	17.9	3.5
1000	7.4	8.0	20.0	26.1	6.1
1250	9.1	14	29.0	36.8	7.8
1400	17.8	19	29.7	39.3	9.6
1600	20.3	23	51.3	60.9	9.6
1800	22.8	35	81.2	93.7	12.5
2000	25.3	40	83.2	95.7	12.5

IMPELLER WEIGHTS

Table 8.

Approximate impeller weights

Hub Dia. mm	Number of blades	Max. Dia. mm	Weight, kg GRP	Alum.	Anti-Static
131	3	800	1.3	2.1	1.3
	6		1.7	3.2	1.7
150	5	900	1.1	2.6	1.1
	10		2.1	4.1	2.1
181	3	900	1.9	2.8	1.9
	6		2.3	3.9	2.3
	9		2.8	5.0	2.8
250	7	1000	3.3	4.9	3.3
	14		4.2	7.3	4.2
251	3	1000	3.3	4.2	3.3
	6		3.7	5.4	3.7
	9		4.1	6.5	4.1
	12		4.5	7.6	4.5
255	3	1300	5.0	7.9	5.2
	6		6.3	11.9	6.6
350	3	1400	9.5	12.6	9.6
	6		10.8	16.6	11.1
	9		12.1	20.6	12.5
	12		13.4	24.6	14.0
400	3	1800	19.0	27.0	-
	6		24.0	40.0	-
	9		29.0	53.0	-
550	3	2000	25.0	33.0	-
	6		30.0	46.0	-
	9		35.0	58.0	-
	12		40.0	71.0	-

MOTOR WEIGHTS

Table 9.

Approximate motor weights

Motor Frame	Shaft Dia. mm	App. wt. kg	Motor kW ratings 48 r/s	24 r/s	16 r/s	12 r/s
D71	14	11	0.37	0.37	-	-
D71	14	16	0.55	-	-	-
D80	19	18	0.75	0.55	0.37	-
D80	19	22	1.1	0.75	0.55	-
D90S	24	25	1.5	1.1	0.75	-
D90L	24	30	2.2	1.5	1.1	0.55
D100L	28	38	3	2.2	1.5	0.75
D100L	28	44	-	3	-	1.1
D112M	28	52	4	4	2.2	1.5
D132S	38	73	5.5/7.5	5.5	3	2.2
D132M	38	87	-	7.5/10	4/5.5	3
D160M	42	130	11/15	11	7.50	4/5.5
D160L	42	150	18.50	15	11	7.50
D180M	48	185	22	18.50	-	-
D180L	48	200	-	22	15	11
D200L	55	265	30/37	30	18.5/22	15
D225S	55/60	310	-	37	-	18.50
D225M	55/60	330	45	45	30	22
D250S	60/70	430	-	-	37	30
D250M	60/65	430	55	55	45	37
D280S	65/70	660	75	75	55	45
D280M	65/80	700	90	90	75	55

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