

CC1400 Mk4 Vane Axial Fan Fan Simulations



- Various Motor Sizes
- Fully Cast One - Piece Aluminium Alloy Impellers
- 1400mm Diameter Casing

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DUCTED FAN PERFORMANCE SIMULATION

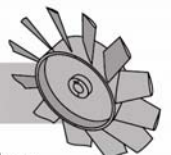
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x110kW

Ducting Diameter	<i>1600mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.06	52.06	0
150	50.75	51.09	747
300	49.23	50.16	1420
450	47.63	49.29	2020
600	46	48.49	2550
750	44.38	47.74	3018
900	42.77	47.05	3429
1050	41.2	46.43	3789
1200	39.68	45.86	4108
1350	38.19	45.34	4384
1500	36.75	44.86	4626
1650	35.37	44.43	4838
1800	34.03	44.03	5024
1950	32.74	43.68	5187
2100	31.5	43.36	5330
2250	30.31	43.07	5455
2400	29.17	42.8	5566
2550	28.07	42.57	5663
2700	27.02	42.35	5748
2850	26	42.16	5824
3000	25.03	41.99	5890

N.B: This simulation was created using FanDuct v5.2 – all rights reserved Dr Mike Howes RPHUK. All simulations shown above assume an air density of 1.2kg/m³ and a perfectly straight, single outlet ducting run. The ducting is assumed to be in new condition, installed/coupled well and with no visible holes. The fan simulations generated from FanDuct v5.2 take the inputs of fan curve, duct diameter, overall length and duct type to generate the fan simulation tables. *Refers to duct leakage factor (e.g. 60x10⁶ is 60 x 1mm² holes per m² duct surface). **Refers to duct frictional resistance (for ducted scenarios R=Resistance approximates K=Friction Factor).



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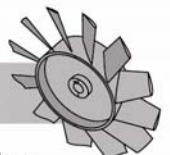
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x110kW

Ducting Diameter	<i>1600mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.06	52.06	0
150	48.09	50.72	1020
300	42.91	49.67	1760
450	37.73	48.95	2265
600	32.89	48.43	2597
750	28.53	48.09	2814
900	24.68	47.87	2954
1050	21.3	47.72	3043
1200	18.37	47.62	3101
1350	15.82	47.57	3137
1500	13.62	47.53	3160
1650	11.71	47.5	3174
1800	10.07	47.49	3183
1950	8.65	47.48	3188
2100	7.43	47.48	3190
2250	6.38	47.47	3192
2400	5.47	47.47	3192
2550	4.69	47.48	3191
2700	4.02	47.48	3190
2850	3.44	47.48	3189
3000	2.95	47.48	3187

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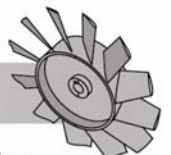
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x90kW

Ducting Diameter	<i>1600mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	48.23	48.23	0
150	46.84	47.16	636
300	45.3	46.16	1202
450	43.71	45.24	1701
600	42.13	44.4	2138
750	40.56	43.64	2522
900	39.04	42.95	2857
1050	37.56	42.32	3149
1200	36.14	41.77	3408
1350	34.76	41.27	3632
1500	33.44	40.81	3829
1650	32.16	40.4	4001
1800	30.94	40.03	4152
1950	29.76	39.7	4285
2100	28.63	39.4	4402
2250	27.55	39.14	4506
2400	26.51	38.9	4597
2550	25.51	38.69	4677
2700	24.56	38.49	4748
2850	23.64	38.32	4811
3000	22.75	38.17	4867

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x90kW

Ducting Diameter	<i>1600mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	48.23	48.23	0
150	44.34	46.75	867
300	39.43	45.64	1486
450	34.59	44.87	1904
600	30.11	44.34	2177
750	26.1	43.99	2355
900	22.56	43.76	2469
1050	19.47	43.61	2542
1200	16.78	43.52	2589
1350	14.46	43.46	2619
1500	12.44	43.42	2638
1650	10.7	43.4	2649
1800	9.2	43.38	2656
1950	7.91	43.37	2660
2100	6.79	43.37	2662
2250	5.83	43.37	2663
2400	5	43.37	2663
2550	4.29	43.37	2663
2700	3.67	43.37	2662
2850	3.15	43.37	2661
3000	2.69	43.38	2660

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x110kW

Ducting Diameter	<i>1600mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.17	52.17	0
125	50.57	50.82	617
250	48.86	49.56	1161
375	47.14	48.39	1637
500	45.44	47.3	2052
625	43.77	46.29	2412
750	42.16	45.35	2724
875	40.6	44.5	2994
1000	39.12	43.72	3230
1125	37.68	42.99	3433
1250	36.3	42.33	3609
1375	34.98	41.72	3762
1500	33.72	41.16	3895
1625	32.52	40.65	4010
1750	31.36	40.18	4111
1875	30.26	39.76	4199
2000	29.21	39.37	4275
2125	28.2	39.01	4342
2250	27.23	38.68	4401
2375	26.3	38.38	4453
2500	25.41	38.11	4498

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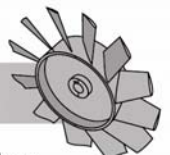
MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x110kW

Ducting Diameter	<i>1600mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.17	52.17	0
125	48.3	50.3	848
250	43.62	48.81	1471
375	39	47.7	1909
500	34.68	46.88	2211
625	30.74	46.29	2418
750	27.21	45.87	2560
875	24.06	45.58	2657
1000	21.26	45.37	2724
1125	18.77	45.23	2769
1250	16.57	45.14	2800
1375	14.62	45.07	2822
1500	12.9	45.02	2836
1625	11.38	44.99	2845
1750	10.03	44.97	2852
1875	8.84	44.96	2856
2000	7.79	44.95	2858
2125	6.86	44.95	2860
2250	6.04	44.95	2861
2375	5.32	44.95	2861
2500	4.68	44.95	2860

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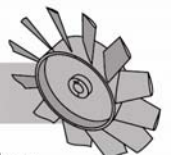
MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x90kW

Ducting Diameter	<i>1600mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	49.7	49.7	0
125	47.99	48.24	556
250	46.23	46.89	1040
375	44.49	45.66	1458
500	42.79	44.54	1820
625	41.16	43.52	2132
750	39.59	42.59	2402
875	38.1	41.75	2636
1000	36.68	41	2841
1125	35.32	40.31	3017
1250	34.03	39.68	3171
1375	32.79	39.11	3305
1500	31.61	38.59	3423
1625	30.49	38.12	3526
1750	29.42	37.69	3617
1875	28.39	37.3	3696
2000	27.41	36.95	3767
2125	26.48	36.63	3829
2250	25.58	36.34	3885
2375	24.72	36.08	3934
2500	23.9	35.84	3978

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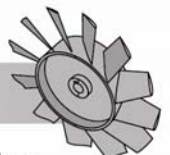
MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x90kW

Ducting Diameter	<i>1600mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	49.7	49.7	0
125	45.78	47.67	762
250	41.2	46.1	1312
375	36.76	44.95	1696
500	32.63	44.12	1958
625	28.91	43.52	2138
750	25.57	43.11	2261
875	22.6	42.81	2345
1000	19.96	42.61	2402
1125	17.63	42.47	2442
1250	15.56	42.38	2469
1375	13.73	42.31	2487
1500	12.11	42.27	2499
1625	10.68	42.24	2508
1750	9.42	42.22	2513
1875	8.3	42.21	2517
2000	7.31	42.2	2519
2125	6.44	42.19	2520
2250	5.67	42.19	2521
2375	4.99	42.19	2521
2500	4.39	42.19	2521

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x110kW

Ducting Diameter	<i>1600mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	55.56	55.56	0
75	53.13	53.25	408
150	50.82	51.16	749
225	48.66	49.26	1035
300	46.64	47.52	1274
375	44.75	45.94	1476
450	43	44.5	1646
525	41.35	43.18	1789
600	39.83	41.98	1911
675	38.39	40.87	2014
750	37.04	39.84	2102
825	35.77	38.9	2177
900	34.58	38.04	2241
975	33.45	37.24	2295
1050	32.39	36.5	2342
1125	31.38	35.81	2382
1200	30.43	35.18	2416
1275	29.53	34.59	2446
1350	28.68	34.04	2472
1425	27.86	33.53	2494
1500	27.09	33.06	2512

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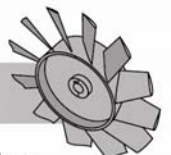
MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x110kW

Ducting Diameter	<i>1600mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	55.56	55.56	0
75	51.33	52.31	565
150	47.08	49.65	978
225	43.14	47.5	1277
300	39.56	45.8	1496
375	36.32	44.42	1656
450	33.4	43.33	1775
525	30.76	42.46	1864
600	28.36	41.77	1931
675	26.18	41.21	1983
750	24.19	40.77	2023
825	22.36	40.42	2053
900	20.69	40.14	2077
975	19.16	39.92	2096
1050	17.74	39.74	2111
1125	16.43	39.6	2122
1200	15.23	39.48	2131
1275	14.11	39.4	2139
1350	13.08	39.32	2144
1425	12.12	39.27	2149
1500	11.24	39.22	2152

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CC1400 Mk4 Vane Axial Fan Fan Simulations



- Various Motor Sizes
- Fully Cast One - Piece Aluminium Alloy Impellers
- 1400mm Diameter Casing

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x90kW

Ducting Diameter	<i>1600mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	50.53	50.53	0
75	48.68	48.79	342
150	46.87	47.18	637
225	45.13	45.69	890
300	43.49	44.31	1108
375	41.93	43.04	1295
450	40.46	41.87	1457
525	39.06	40.78	1596
600	37.75	39.79	1717
675	36.5	38.85	1821
750	35.31	37.99	1911
825	34.19	37.19	1989
900	33.13	36.44	2057
975	32.11	35.75	2116
1050	31.15	35.11	2167
1125	30.24	34.51	2211
1200	29.37	33.95	2250
1275	28.54	33.42	2284
1350	27.75	32.94	2314
1425	26.99	32.48	2340
1500	26.26	32.06	2363

N.B: This simulation was created using FanDuct v5.2 – all rights reserved Dr Mike Howes RPHUK. All simulations shown above assume an air density of 1.2kg/m³ and a perfectly straight, single outlet ducting run. The ducting is assumed to be in new condition, installed/coupled well and with no visible holes. The fan simulations generated from FanDuct v5.2 take the inputs of fan curve, duct diameter, overall length and duct type to generate the fan simulation tables. *Refers to duct leakage factor (e.g. 60x10⁶ is 60 x 1mm² holes per m² duct surface). **Refers to duct frictional resistance (for ducted scenarios R=Resistance approximates K=Friction Factor).



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DUCTED FAN PERFORMANCE SIMULATION

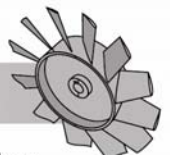
MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x90kW

Ducting Diameter	<i>1600mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	50.53	50.53	0
75	47.17	48.07	477
150	43.62	46	839
225	40.23	44.3	1110
300	37.08	42.93	1314
375	34.19	41.81	1467
450	31.53	40.91	1582
525	29.11	40.19	1670
600	26.89	39.61	1737
675	24.86	39.15	1789
750	23	38.78	1829
825	21.29	38.48	1861
900	19.71	38.24	1885
975	18.26	38.05	1905
1050	16.92	37.9	1920
1125	15.68	37.78	1932
1200	14.53	37.68	1941
1275	13.47	37.61	1949
1350	12.49	37.55	1955
1425	11.58	37.5	1959
1500	10.73	37.46	1963

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DUCTED FAN PERFORMANCE SIMULATION

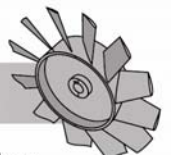
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x110kW

Ducting Diameter	<i>1400mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.06	52.06	0
125	50.12	50.44	1224
250	48.05	48.92	2272
375	45.99	47.51	3159
500	43.97	46.22	3907
625	42.02	45.03	4533
750	40.16	43.96	5059
875	38.38	42.97	5495
1000	36.68	42.07	5859
1125	35.07	41.26	6161
1250	33.54	40.51	6413
1375	32.09	39.84	6622
1500	30.72	39.23	6796
1625	29.42	38.68	6941
1750	28.19	38.18	7062
1875	27.03	37.73	7162
2000	25.92	37.32	7247
2125	24.88	36.95	7317
2250	23.88	36.62	7376
2375	22.93	36.32	7425
2500	22.03	36.04	7466

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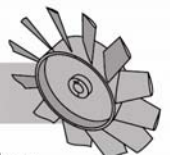
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x110kW

Ducting Diameter	<i>1400mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.06	52.06	0
125	47.35	49.8	1670
250	41.83	48.07	2813
375	36.57	46.85	3559
500	31.8	46	4037
625	27.59	45.42	4343
750	23.91	45.04	4539
875	20.71	44.78	4665
1000	17.92	44.62	4746
1125	15.51	44.51	4798
1250	13.41	44.44	4831
1375	11.59	44.4	4852
1500	10.02	44.37	4865
1625	8.65	44.35	4873
1750	7.47	44.35	4878
1875	6.45	44.34	4880
2000	5.56	44.34	4881
2125	4.8	44.34	4880
2250	4.13	44.34	4880
2375	3.56	44.34	4878
2500	3.06	44.35	4876

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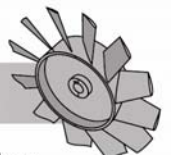
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x90kW

Ducting Diameter	<i>1400mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	48.23	48.23	0
125	46.16	46.45	1038
250	44.05	44.84	1909
375	42.02	43.4	2637
500	40.07	42.12	3244
625	38.23	40.97	3752
750	36.51	39.96	4181
875	34.88	39.05	4539
1000	33.34	38.24	4841
1125	31.89	37.52	5096
1250	30.53	36.88	5314
1375	29.24	36.31	5499
1500	28.03	35.79	5658
1625	26.88	35.34	5794
1750	25.79	34.93	5911
1875	24.76	34.57	6013
2000	23.79	34.24	6101
2125	22.86	33.95	6178
2250	21.97	33.69	6244
2375	21.13	33.46	6303
2500	20.32	33.25	6354

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x90kW

Ducting Diameter	<i>1400mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	48.23	48.23	0
125	43.53	45.78	1411
250	38.27	43.98	2353
375	33.36	42.74	2962
500	28.97	41.9	3350
625	25.12	41.34	3599
750	21.76	40.98	3758
875	18.83	40.74	3860
1000	16.3	40.58	3926
1125	14.1	40.48	3968
1250	12.19	40.41	3995
1375	10.54	40.37	4012
1500	9.11	40.35	4023
1625	7.87	40.33	4029
1750	6.79	40.32	4033
1875	5.86	40.32	4035
2000	5.06	40.32	4035
2125	4.36	40.32	4035
2250	3.76	40.32	4035
2375	3.24	40.32	4033
2500	2.79	40.33	4032

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DUCTED FAN PERFORMANCE SIMULATION

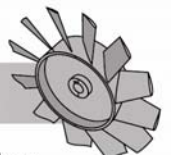
MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x110kW

Ducting Diameter	<i>1400mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.17	52.17	0
75	50.4	50.55	740
150	48.62	49.02	1384
225	46.88	47.59	1942
300	45.19	46.26	2422
375	43.57	45.01	2835
450	42.01	43.84	3190
525	40.52	42.75	3494
600	39.11	41.74	3757
675	37.75	40.79	3979
750	36.46	39.9	4169
825	35.22	39.08	4330
900	34.05	38.3	4467
975	32.92	37.58	4583
1050	31.85	36.9	4681
1125	30.83	36.27	4763
1200	29.86	35.68	4832
1275	28.93	35.13	4890
1350	28.04	34.61	4937
1425	27.19	34.13	4977
1500	26.37	33.68	5009

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x110kW

Ducting Diameter	<i>1400mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.17	52.17	0
75	48.7	49.86	1036
150	44.85	47.91	1822
225	41.1	46.31	2402
300	37.6	45.04	2830
375	34.36	44.02	3142
450	31.4	43.22	3373
525	28.71	42.58	3543
600	26.25	42.09	3670
675	24.02	41.71	3766
750	21.98	41.41	3837
825	20.13	41.18	3892
900	18.43	41	3933
975	16.88	40.86	3964
1050	15.46	40.75	3988
1125	14.17	40.67	4006
1200	12.98	40.61	4020
1275	11.89	40.56	4030
1350	10.89	40.52	4038
1425	9.98	40.5	4044
1500	9.14	40.48	4049

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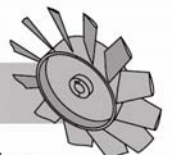
MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x90kW

Ducting Diameter	<i>1400mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	49.7	49.7	0
75	47.8	47.94	666
150	45.94	46.32	1236
225	44.17	44.85	1724
300	42.49	43.49	2141
375	40.9	42.25	2499
450	39.4	41.11	2806
525	37.99	40.07	3071
600	36.66	39.13	3301
675	35.4	38.25	3498
750	34.2	37.44	3669
825	33.07	36.69	3818
900	32	36.01	3947
975	30.99	35.37	4060
1050	30.03	34.79	4159
1125	29.11	34.25	4246
1200	28.24	33.75	4322
1275	27.41	33.29	4390
1350	26.61	32.86	4449
1425	25.86	32.46	4502
1500	25.13	32.09	4548

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x90kW

Ducting Diameter	<i>1400mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	49.7	49.7	0
75	46.11	47.21	929
150	42.29	45.17	1619
225	38.65	43.55	2124
300	35.3	42.29	2494
375	32.23	41.29	2765
450	29.44	40.52	2964
525	26.91	39.92	3113
600	24.61	39.45	3225
675	22.51	39.09	3308
750	20.61	38.81	3372
825	18.87	38.6	3420
900	17.28	38.43	3457
975	15.83	38.31	3485
1050	14.5	38.21	3506
1125	13.28	38.13	3522
1200	12.17	38.08	3534
1275	11.15	38.03	3544
1350	10.21	38	3551
1425	9.36	37.98	3556
1500	8.57	37.96	3560

N.B: This simulation was created using FanDuct v5.2 – all rights reserved Dr Mike Howes RPHUK. All simulations shown above assume an air density of 1.2kg/m³ and a perfectly straight, single outlet ducting run. The ducting is assumed to be in new condition, installed/coupled well and with no visible holes. The fan simulations generated from FanDuct v5.2 take the inputs of fan curve, duct diameter, overall length and duct type to generate the fan simulation tables. *Refers to duct leakage factor (e.g. 60x10⁶ is 60 x 1mm² holes per m² duct surface). **Refers to duct frictional resistance (for ducted scenarios R=Resistance approximates K=Friction Factor).



CC1400 Mk4 Vane Axial Fan Fan Simulations



- Various Motor Sizes
- Fully Cast One - Piece Aluminium Alloy Impellers
- 1400mm Diameter Casing

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x110kW

Ducting Diameter	<i>1400mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	55.56	55.55	0
50	52.42	52.5	533
100	49.57	49.79	956
150	46.99	47.38	1293
200	44.65	45.22	1562
250	42.52	43.28	1778
300	40.57	41.53	1952
350	38.8	39.95	2093
400	37.16	38.51	2206
450	35.65	37.2	2297
500	34.26	36.01	2371
550	32.96	34.91	2430
600	31.76	33.9	2478
650	30.65	32.97	2516
700	29.6	32.12	2546
750	28.62	31.33	2569
800	27.71	30.6	2587
850	Stall	Stall	Stall
900	Stall	Stall	Stall
950	Stall	Stall	Stall
1000	Stall	Stall	Stall

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DUCTED FAN PERFORMANCE SIMULATION

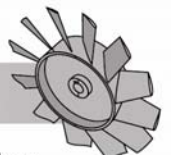
MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x110kW

Ducting Diameter	<i>1400mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	55.56	55.55	0
50	50.57	51.23	739
100	46.03	47.72	1247
150	42.03	44.9	1600
200	38.54	42.63	1847
250	35.48	40.77	2023
300	32.77	39.26	2149
350	30.36	38.02	2242
400	28.21	37	2310
450	26.28	36.16	2362
500	24.52	35.47	2401
550	22.93	34.9	2431
600	21.47	34.42	2454
650	20.12	34.02	2473
700	18.89	33.69	2487
750	17.74	33.41	2499
800	16.67	33.18	2508
850	15.68	32.99	2515
900	14.76	32.83	2521
950	13.89	32.69	2526
1000	13.08	32.58	2530

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x90kW

Ducting Diameter	<i>1400mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	50.53	50.53	0
50	48.14	48.22	450
100	45.91	46.11	820
150	43.84	44.2	1125
200	41.92	42.46	1377
250	40.15	40.86	1586
300	38.51	39.42	1759
350	36.98	38.08	1902
400	35.56	36.85	2020
450	34.23	35.72	2118
500	32.99	34.67	2199
550	31.83	33.71	2266
600	30.74	32.81	2321
650	29.72	31.98	2366
700	28.76	31.21	2404
750	27.86	30.49	2434
800	27	29.82	2458
850	Stall	Stall	Stall
900	Stall	Stall	Stall
950	Stall	Stall	Stall
1000	Stall	Stall	Stall

N.B: This simulation was created using FanDuct v5.2 – all rights reserved Dr Mike Howes RPHUK. All simulations shown above assume an air density of 1.2kg/m³ and a perfectly straight, single outlet ducting run. The ducting is assumed to be in new condition, installed/coupled well and with no visible holes. The fan simulations generated from FanDuct v5.2 take the inputs of fan curve, duct diameter, overall length and duct type to generate the fan simulation tables. *Refers to duct leakage factor (e.g. 60x10⁶ is 60 x 1mm² holes per m² duct surface). **Refers to duct frictional resistance (for ducted scenarios R=Resistance approximates K=Friction Factor).



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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x90kW

Ducting Diameter	<i>1400mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	50.53	50.53	0
50	46.63	47.23	628
100	42.89	44.47	1083
150	39.5	42.2	1413
200	36.47	40.33	1654
250	33.74	38.77	1830
300	31.29	37.49	1960
350	29.09	36.43	2058
400	27.1	35.55	2132
450	25.3	34.81	2189
500	23.65	34.21	2233
550	22.14	33.7	2267
600	20.75	33.27	2294
650	19.47	32.92	2315
700	18.29	32.62	2332
750	17.19	32.37	2346
800	16.16	32.17	2357
850	15.21	31.99	2366
900	14.32	31.85	2373
950	13.48	31.73	2379
1000	12.7	31.62	2384

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DUCTED FAN PERFORMANCE SIMULATION

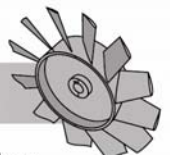
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x110kW

Ducting Diameter	<i>1200mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.06	52.06	0
100	48.9	49.18	2095
200	45.81	46.57	3711
300	42.9	44.2	4936
400	40.2	42.08	5854
500	37.68	40.16	6526
600	35.35	38.41	7006
700	33.19	36.84	7337
800	31.19	35.4	7552
900	Stall	Stall	Stall
1000	Stall	Stall	Stall
1100	Stall	Stall	Stall
1200	Stall	Stall	Stall
1300	Stall	Stall	Stall
1400	Stall	Stall	Stall
1500	Stall	Stall	Stall
1600	Stall	Stall	Stall
1700	Stall	Stall	Stall
1800	Stall	Stall	Stall
1900	Stall	Stall	Stall
2000	Stall	Stall	Stall

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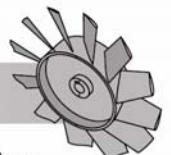
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x110kW

Ducting Diameter	<i>1220mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.06	52.06	0
100	46.22	48.36	2633
200	40.2	45.57	4266
300	34.82	43.55	5244
400	30.17	42.14	5833
500	26.19	41.16	6193
600	22.77	40.5	6417
700	19.83	40.05	6559
800	17.28	39.75	6650
900	15.08	39.54	6709
1000	13.15	39.41	6747
1100	11.48	39.32	6772
1200	10.02	39.26	6788
1300	8.74	39.22	6798
1400	7.63	39.2	6805
1500	6.65	39.19	6808
1600	5.8	39.18	6810
1700	5.06	39.18	6811
1800	4.41	39.18	6811
1900	3.84	39.18	6810
2000	3.34	39.18	6809

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DUCTED FAN PERFORMANCE SIMULATION

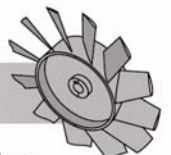
MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x90kW

Ducting Diameter	<i>1200mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	48.23	48.23	0
100	44.86	45.12	1764
200	41.77	42.46	3085
300	39.01	40.19	4080
400	36.54	38.25	4837
500	34.32	36.57	5413
600	32.32	35.12	5857
700	30.51	33.86	6201
800	28.87	32.76	6469
900	27.37	31.8	6680
1000	26	30.96	6847
1100	24.75	30.22	6979
1200	23.59	29.57	7085
1300	22.51	28.99	7170
1400	21.51	28.48	7239
1500	20.58	28.03	7295
1600	19.71	27.63	7340
1700	18.9	27.27	7377
1800	18.13	26.95	7408
1900	17.4	26.66	7433
2000	Stall	Stall	Stall

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Three-Stage Co-Rotating Vane Axial

POWER: 4-Pole 3x90kW

Ducting Diameter	<i>1220mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	48.23	48.23	0
100	42.31	44.27	2206
200	36.6	41.49	3536
300	31.65	39.58	4332
400	27.43	38.3	4819
500	23.82	37.44	5124
600	20.73	36.87	5317
700	18.06	36.48	5442
800	15.75	36.23	5524
900	13.75	36.06	5577
1000	12	35.94	5612
1100	10.47	35.87	5635
1200	9.14	35.82	5650
1300	7.98	35.79	5660
1400	6.96	35.77	5666
1500	6.07	35.76	5669
1600	5.3	35.75	5671
1700	4.62	35.75	5672
1800	4.02	35.75	5672
1900	3.5	35.75	5671
2000	3.05	35.75	5670

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DUCTED FAN PERFORMANCE SIMULATION

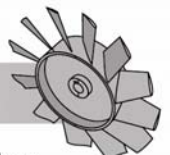
MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x110kW

Ducting Diameter	<i>1200mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.17	52.17	0
50	49.66	49.76	1077
100	47.27	47.55	1959
150	45.02	45.5	2675
200	42.91	43.61	3255
250	40.93	41.87	3721
300	39.07	40.26	4095
350	37.33	38.76	4388
400	35.69	37.36	4615
450	34.15	36.06	4788
500	32.7	34.85	4916
550	31.34	33.72	5006
600	30.05	32.66	5065
650	28.84	31.67	5097
700	27.69	30.73	5108
750	Stall	Stall	Stall
800	Stall	Stall	Stall
850	Stall	Stall	Stall
900	Stall	Stall	Stall
950	Stall	Stall	Stall
1000	Stall	Stall	Stall

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DUCTED FAN PERFORMANCE SIMULATION

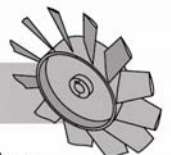
MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x110kW

Ducting Diameter	<i>1220mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	52.17	52.17	0
75	46.19	47.58	1947
150	40.55	44.02	3136
225	35.65	41.35	3851
300	31.46	39.34	4280
375	27.88	37.84	4542
450	24.81	36.73	4704
525	22.16	35.91	4807
600	19.84	35.29	4873
675	17.81	34.84	4917
750	16.01	34.5	4947
825	14.42	34.26	4967
900	12.99	34.07	4981
975	11.71	33.94	4991
1050	10.57	33.84	4998
1125	9.53	33.77	5003
1200	8.61	33.72	5006
1275	7.77	33.68	5009
1350	7.01	33.65	5011
1425	6.33	33.64	5012
1500	5.71	33.62	5013

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CC1400 Mk4 Vane Axial Fan Fan Simulations



- Various Motor Sizes
- Fully Cast One - Piece Aluminium Alloy Impellers
- 1400mm Diameter Casing

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ABN: 54 115 959 683

DUCTED FAN PERFORMANCE SIMULATION

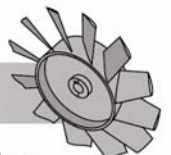
MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x90kW

Ducting Diameter	<i>1200mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	49.7	49.7	0
50	47.01	47.11	965
100	44.54	44.8	1739
150	42.29	42.74	2360
200	40.24	40.9	2862
250	38.36	39.24	3269
300	36.65	37.76	3602
350	35.07	36.41	3872
400	33.61	35.19	4093
450	32.26	34.07	4274
500	31.02	33.06	4422
550	29.86	32.13	4544
600	28.78	31.28	4644
650	27.77	30.49	4727
700	26.83	29.77	4794
750	25.94	29.11	4850
800	25.11	28.5	4895
850	24.33	27.93	4931
900	23.59	27.41	4961
950	22.89	26.92	4985
1000	22.23	26.47	5004

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Two-Stage Co-Rotating Vane Axial

POWER: 4-Pole 2x90kW

Ducting Diameter	<i>1220mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	49.7	49.7	0
75	43.53	44.83	1729
150	38.03	41.29	2759
225	33.42	38.76	3384
300	29.53	36.93	3771
375	26.23	35.6	4020
450	23.4	34.64	4184
525	20.94	33.94	4294
600	18.79	33.42	4370
675	16.89	33.04	4424
750	15.21	32.77	4461
825	13.7	32.56	4488
900	12.36	32.41	4508
975	11.15	32.31	4522
1050	10.06	32.22	4532
1125	9.08	32.17	4539
1200	8.2	32.12	4544
1275	7.4	32.09	4548
1350	6.68	32.07	4551
1425	6.03	32.06	4553
1500	5.44	32.05	4554

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DUCTED FAN PERFORMANCE SIMULATION

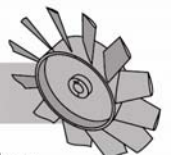
MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x110kW

Ducting Diameter	<i>1200mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	55.55	55.55	0
25	52.11	52.14	592
50	49.04	49.14	1051
75	46.32	46.49	1408
100	43.87	44.13	1687
125	41.67	42.01	1906
150	39.69	40.12	2079
175	37.88	38.39	2215
200	36.23	36.83	2321
225	34.72	35.41	2404
250	33.33	34.1	2469
275	32.05	32.91	2518
300	30.87	31.81	2556
325	29.77	30.79	2583
350	Stall	Stall	Stall
375	Stall	Stall	Stall
400	Stall	Stall	Stall
425	Stall	Stall	Stall
450	Stall	Stall	Stall
475	Stall	Stall	Stall
500	Stall	Stall	Stall

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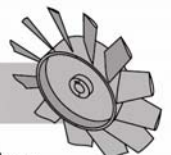
MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x110kW

Ducting Diameter	<i>1220mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	55.55	55.55	0
25	50.75	51.04	768
50	46.54	47.3	1303
75	42.9	44.19	1680
100	39.75	41.59	1948
125	36.98	39.39	2139
150	34.55	37.51	2277
175	32.39	35.91	2377
200	30.46	34.53	2449
225	28.73	33.33	2502
250	27.17	32.29	2540
275	25.75	31.38	2568
300	24.46	30.59	2588
325	Stall	Stall	Stall
350	Stall	Stall	Stall
375	Stall	Stall	Stall
400	Stall	Stall	Stall
425	Stall	Stall	Stall
450	Stall	Stall	Stall
475	Stall	Stall	Stall
500	Stall	Stall	Stall

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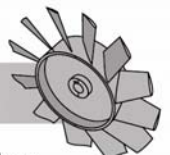
MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x90kW

Ducting Diameter	<i>1200mm</i>	Type	<i>PVC Low Leakage with Coupling Band Joins</i>
Leakage Factor*	<i>60x10⁶</i>	R-Factor**	<i>0.00335Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	50.53	50.53	0
25	47.9	47.94	501
50	45.51	45.6	905
75	43.32	43.49	1232
100	41.32	41.56	1497
125	39.49	39.81	1712
150	37.82	38.22	1887
175	36.26	36.75	2029
200	34.82	35.4	2144
225	33.49	34.15	2236
250	32.25	32.99	2311
275	31.09	31.92	2370
300	30.01	30.93	2416
325	Stall	Stall	Stall
350	Stall	Stall	Stall
375	Stall	Stall	Stall
400	Stall	Stall	Stall
425	Stall	Stall	Stall
450	Stall	Stall	Stall
475	Stall	Stall	Stall
500	Stall	Stall	Stall

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DUCTED FAN PERFORMANCE SIMULATION

MODEL: CC1400 Mk4

ORIENTATION: Single-Stage Vane Axial

POWER: 4-Pole 1x90kW

Ducting Diameter	<i>1220mm</i>	Type	<i>Standard Polyethylene with Eyelet Joins</i>
Leakage Factor*	<i>400x10⁶</i>	R-Factor**	<i>0.00474Ns²m⁸</i>
Total Ducting Length Coupled to Fan (m)	Volumetric Quantity at the Duct Exit (m ³ /s)	Volumetric Quantity at the Fan Inlet (m ³ /s)	Fan Total Pressure (Pa)
0	50.53	50.53	0
25	46.81	47.08	654
50	43.43	44.14	1135
75	40.41	41.62	1490
100	37.72	39.47	1754
125	35.31	37.6	1949
150	33.14	35.99	2096
175	31.2	34.59	2205
200	29.44	33.37	2288
225	27.85	32.3	2350
250	26.39	31.37	2396
275	25.06	30.54	2432
300	23.84	29.81	2458
325	Stall	Stall	Stall
350	Stall	Stall	Stall
375	Stall	Stall	Stall
400	Stall	Stall	Stall
425	Stall	Stall	Stall
450	Stall	Stall	Stall
475	Stall	Stall	Stall
500	Stall	Stall	Stall

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