

SWAN Projects

C760-1 DUCT SYSTEM RESISTANCE 290523

Section	Duct size - mm	Area	Length mtr	ζ	Volume m ³ .s ⁻¹	Velocity m.s ⁻¹	VP	Pa.m ⁻¹	Loss Pa
canopy					1.395				80
connecting duct	250x250		0.14		0.465	8	38.4	3	0.42
entry to header	250x250			1			38.4		38.4
duct	700x250		1.4		0.465	2.9		0.22	0.31
branch duct entry	700x250			0.27					5.83
duct	700x250		1.5		0.93	6	21.6	0.9	1.35
branch duct entry	700x250			0.29					12.57
duct	700x250		1.8		1.395	8.5	43.35	1.8	3.24
offset	700x250			0.27	1.395	8.5	43.35		11.7
bend	700x250			0.3	1.395	8.5	43.35		13
duct	700x250		2.75		1.395	8.5	43.35	1.8	4.95
branch duct entry	700x250			0.27					16.85
duct	700x250		1		1.671	10.2	62.42	2.4	2.4
bend	700x250			0.3	1.671	10.2	62.42		18.73
bend	700x250			0.3	1.671	10.2	62.42		18.73
duct	700x250		1.6		1.671	10.2	62.42	2.4	3.84
taper				0.6	1.671				3.24
ESP	1250x475				1.671	3	5.4		220
taper				0.17	1.671				10.61
duct	700x250		0.4		1.671	10.2	62.42	2.4	0.96
bend 45°	700x250			0.35	1.671	10.2	62.42		21.85
duct	700x250		1.5		1.671	10.2	62.42	2.4	3.6
bend 45°	700x250			0.35	1.671	10.2	62.42		21.85
duct	700x250		1.8		1.671	10.2	62.42	2.4	4.32
sound attenuator	700x250				1.671	10.2	62.42		80
taper	700x250>700x700			0.29	1.671	3.5	7.35		2.13
FAN					1.671				
taper	310 x 700>700x 250				1.671				2.4

duct	700x250	1		1.671			2.4	2.4
sound attenuator	700x250			1.671	10.2	62.42		80
duct	700x250	0.5		1.671	10.2	62.42	2.4	1.2
bend	700x250		0.31	1.671	10.2	62.42		19.35
duct	700x250	1		1.671	10.2	62.42	2.4	2.4
expanding bend	700x250<700x700		1.46	1.671	10.2	62.42		91.13
transform	700x700>500 dia		0.05	1.671				1.69
duct	500 dia	11.3		1.671	7.5	33.75	1.4	15.82
taper	500>355 dia		0.06	1.671				8.43
vertical jet cowl			1.3	1.671	15.3	140.45		182.6
								1008.3