

(7)

4)

가.

(吹入口)

.

,

(吹入口)

,

가

.

4

.

.

.

(曲部分)

(曲率)

R

.

$R/a = 1.5 \sim 2.0$ 가

(a

). R/a 가

1.5 가

. 가

4

.

20°

.

45°

.

aspect ratio

6

,

10

.

(略設計法)

.

가

< 18 >

(後述) 4

.

< 18> (R=0.10mmAq/m, Q>10,000m³/h v=8m/s)

(m³/h)	(cm)										
			1,400	31.6	62x15 43x20	5,500	52.8	82x30 59x40	20,000	44	128x60
100	11.7	12x10 20x6	1,600	33.1	70x15 48x20	6,000	54.5	88x30 63x40	25,000	106	168x60
200	15.2	20x10 40x6	1,800	34.6	53x20 34x30	7,000	57.5	70x40 56x50	30,000	114	198x60
300	17.5	28x10 36x8	2,000	36.0	58x20 36x30	8,000	60.3	78x40 62x50	35,000	125	245x60
400	19.5	35x10 48x8	2,500	39.2	70x20 44x30	9,000	63.0	86x40 68x50	40,000	132	285x60
500	21.3	42x10 26x15	3,000	41.8	50x30 36x40	10,000	66	94x40 74x50	45,000	143	250x75
600	22.7	50x10 30x15	3,500	44.4	56x30 42x40	12,000	74	74x50	50,000	151	280x75
800	25.2	38x15	4,000	46.5	62x30 46x40	14,000	79	88x 60	60,000	165	270x90
1000	27.6	46x15 32x20	4,500	48.8	70x30 50x40	16,000	86	105x60	70,000	178	280x100
1200	29.5	54x15 38x20	5,000	51.0	76x30 56x40	18,000	89	113x60	80,000	190	290x110

10% (増)

(靜壓) P_s

< 19>

(送風機必要靜壓)

(層)

(式)

가

(略算)

$$P_s = P_D + P_A$$

(4.1)

$$P_D = Pl(1 + k) \quad (4.2)$$

, P_s : (mmAq)

P_A : , , 가
(mmAq)

P_D : (mmAq)

R : (mmAq/m)

l : ((最遠端) (吹出口)) + ((最遠端)
(吸入口))(m)

k : (局部抵抗)

$k = 0.50$ ((曲部), (分岐)가)

$= 1.00$ ((曲部), (分岐)가)

< 19> (必要靜壓)(mmAq)

		$P_s = 10 \sim 20$ $P_s = 30 \sim 40$
	(300m ²) (2000m ²) (有) (2000m ²) (無) () ()	$P_s = 40 \sim 50$ $P_s = 60 \sim 75$ $P_s = 65 \sim 110$ $P_s = 100 \sim 150$ $P_s = 150 \sim 250$

. (等壓法)

(等壓法) .

(等摩擦法)(equal friction method) , (定壓

法) . (最遠端), 가

(, index circuit) R_D

. $R_D = 0.08 \sim 0.15 \text{ mmAq/m}$ (0.10 mmAq/m)

가 .

< 20> $10,000 \text{ m}^3/\text{h}$

, . (附圖) 2

(抵抗線圖) ,

(試案) . (附圖) 2 1 (點鎖線) ,

, 2 (點鎖線) ,

.

< 20> ()

	(推獎風速)(m/s)			(m/s)		
(吐出口)	3.5 5~8	4.0 6.5~10	5.0 8~12	4.5 8.5	5.0 7.5~11	7.0 8.5~14
(住)	3.5~4.5	5~6.5	6~9	4~6	5.5~8	6.5~11
(分岐)	3	3~4.5	4~5	3.5~5	4~6.5	5~9
(分岐立上)	2.5	3~3.5	4	3.25~4	4~6	5~8

< 21> (m/s)

(空氣取入)	$12,000 \text{ m}^3/\text{h}$	2.0
//	$3000 \text{ m}^3/\text{h}$	1.4
	$12,000 \text{ m}^3/\text{h}$	2.5
//	$3000 \text{ m}^3/\text{h}$	1.6
가	1~ 7.5 (2.5~3.0)	
	(無)	2.5
	(有)	3~3.5
		4~6
		2~3

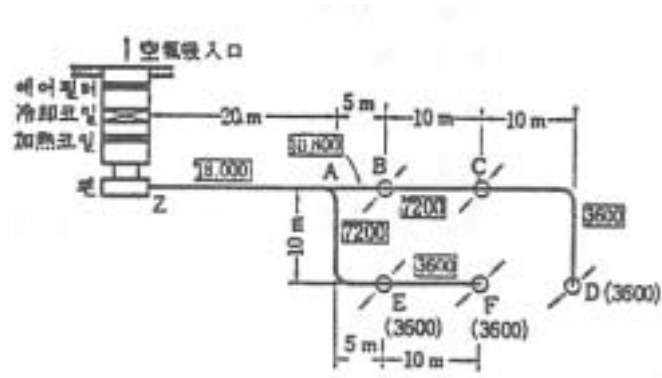
< 21> . < 21>
 (面風速)(face velocity) , (m³/s) ((前面積)) .
 , 2
 .
 (動力) , (省)
 (點) (空調用)
 . (排煙)
 .
 (住) 20~30m/s (< 22>).
 가 (靜壓) ,
 (動力費)가 . 30m/s
 (增額面)
 .
 .
 . (定壓法) 1mmAq/m
 . (靜壓) 150~200mmAq
 .

< 22> (送風)

(m ³ /h)	(m/s)
5,000~10,000	12.5
10,000~17,000	17.5
17,000~25000	20

25,000~40,000	22.5
40,000~70,000	25
70,000~100,000	30

() < 20> .



< 23>

< 23>

	Q(m³/h)	d(cm)	v(m/s)	R(mmAq/m)	(長方形)		(實風速)
					a x b (cm)	(m²)	v _a (m/s)
ZA	18,000	88	8.0	0.066	185 x 40	0.74	6.76
AB	10,800	69	8.0	0.090	105 x 40	0.42	7.14
BC	7,200	58	7.0	0.100	73 x 40	0.292	6.84
CD	3,600	44	6.3	0.100	41 x 40	0.164	6.10
AE	7,200	58	7.0	0.100	73 x 40	0.292	6.84
EF	3,600	44	6.3	0.100	41 x 40	0.164	6.10

(發生

(騒音)
(消音)
(吹出口)

(消音箱子)
(消音箱子)

(壓力調整用)
(減壓)

(吹出)
가

(過流)가 (騒音)
(騒音) (曲部) (分岐)
(過流)
가 .
가 .
(排煙) 가 .