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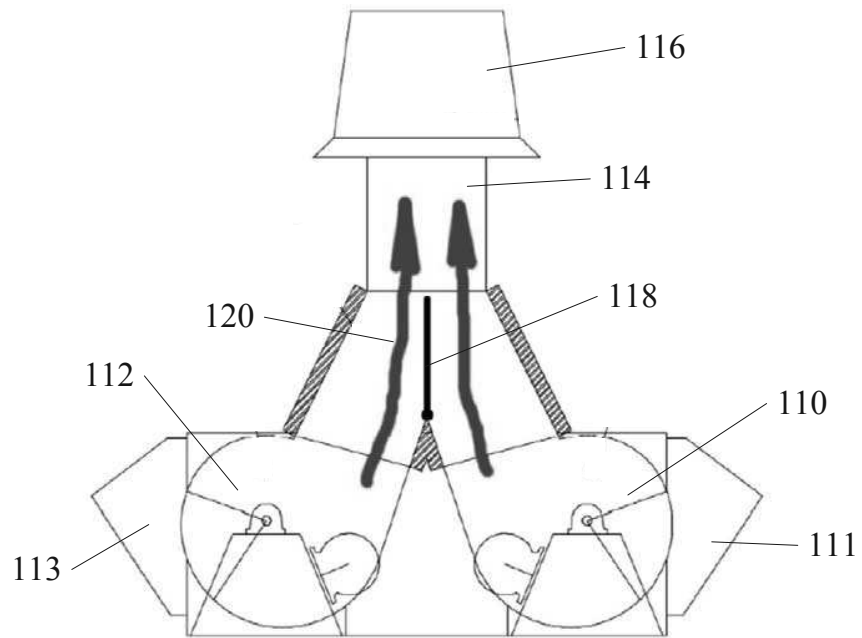


FIG. 1

100

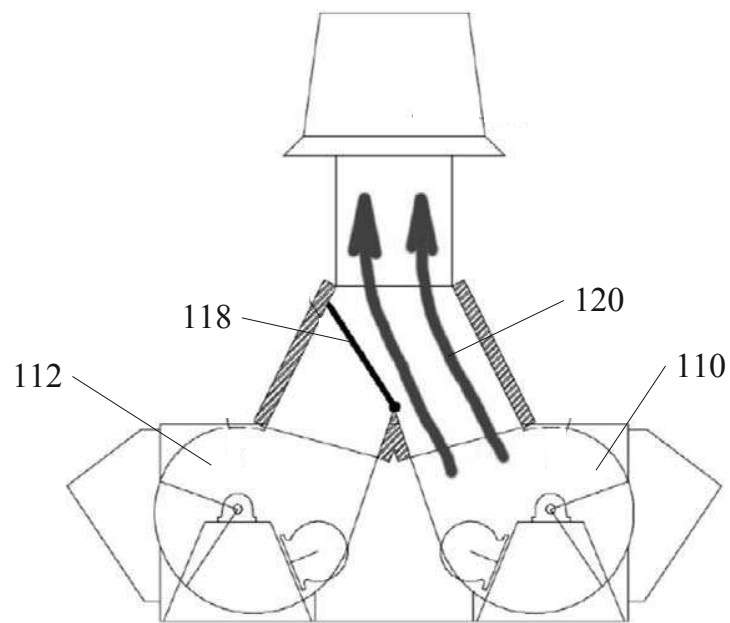


FIG. 2

100

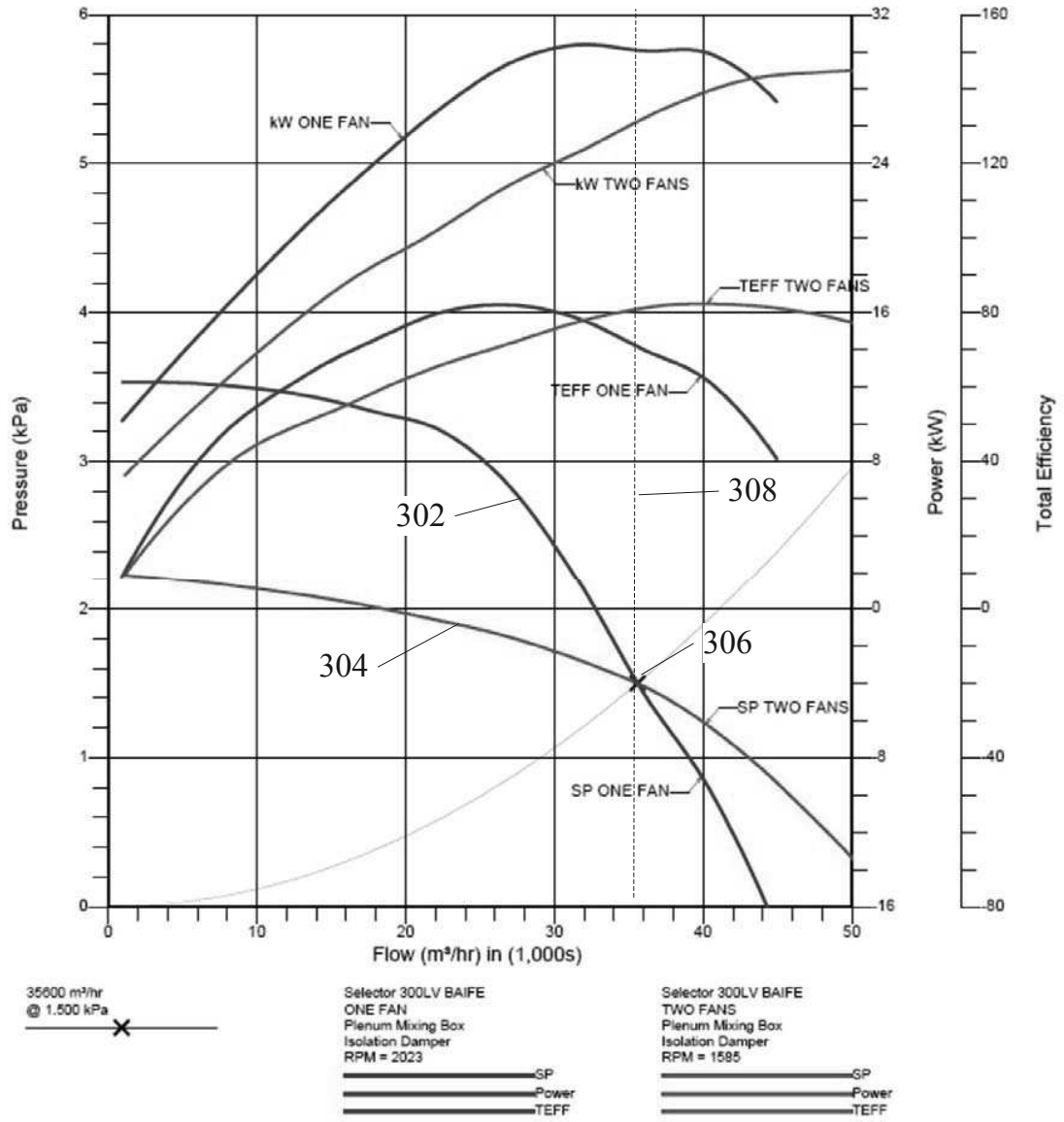


FIG. 3

Parameter	Required	Two Fans	One Fan
Fan Performance Model	-	300LV BAIFE	300LV BAIFE
Fan Speed, RPM	-	1585 rpm	2023 rpm
Brake Kilowatts, kW	-	26.3 kW (13.1 kW each)	30.1 kW
Total Efficiency, %	-	81%	71%
Outlet Sound Pressure Levels, dBA at 6m Q=1	65 dBA	68 dBA (65 dBA each)	76 dBA
Windband Discharge Velocity, m/s	15.24 m/s	16.59 m/s	16.59 m/s
Dilution Ratio, %	-	178%	178%
Entrainment Ratio, %	-	168%	168%
Plume Height, m	-	17.8 m	17.8 m
Fan Height, m	5.0 m	TBD	5.19 m

FIG. 4

Fan Description		Fan Performance	
Tag	N/A	m³/hr	35,600
Type	BAIFE	Max. building flow (m³/hr)	33,600
Size	300LV	Min. building flow (m³/hr)	0
Width	SWSI	Add. bypass flow (m³/hr)	2,000
Class	III	Operating SP (Pa)	1,500
Wheel diameter (m)	0.76	Standard SP (Pa)	1,500
Percentage width	100%	RPM	2023
Percentage diameter	100%	Tip Speed (m/sec)	80.7
Cross wind velocity (km/hr)	16	Oper. BHP (kW)	30.09
		Standard BHP (kW)	30.09
		Temperature (°C)	21
		Altitude (m)	0
		Density (kg/m³)	1.201
		Max RPM for Class	2294
		Static Efficiency	49.24
		Total Efficiency	70.66
		Fan Efficiency Grade	FEG85
		Nozzle outlet area (m²)	0.3
		Nozzle outlet vel. (m/sec)	33
		Induced flow (m³/hr)	24,185
		Total System Flow (m³/hr)	59,785
		Dilution ratio	178%
		Entrainment ratio	168%
		Plume height (m)	17.8
		Windband outlet area (m²)	1.001
		Windband outlet vel. (m/sec)	16.59

Modifiers	
Plenum Mixing Box, Isolation Damper	

Sound									
Sound Power Levels in dB re. 10-12Watts:									
Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	101	99	103	99	95	94	88	83	102
Level at Outlet	105	102	101	99	96	95	89	83	102

Estimated sound pressure level in dBA (re: 0.0002 microbar) based on a single* ducted installation:

Distance in m	6
dBA at Inlet	76
dBA at Outlet	76

*To estimate dBA level for ducted inlet and ducted outlet (into and out of the room) type installation, deduct 20 from the LwA value shown.

FIG. 5

Fan Description		Fan Performance							
Tag	N/A	Total Lab Exh. Vol. (m³/hr)	33,600						
# of systems	0	Max. bld. flow (m³/hr)/fan	16,800						
# fans per system	2	Min. bld. flow (m³/hr)/fan	0						
# fans in standby/system	0	Add. byp. flow (m³/hr)/fan	1,000						
Type	BAIFE	Operating SP (Pa)	1,500						
Size	300LV	Standard SP (Pa)	1,500						
Width	SWSI	RPM	1585						
Class	III	Tip Speed (m/sec)	63.2						
Wheel diameter (m)	0.76	Oper. BHP (kW)/fan	13.13						
Percentage width	100%	Standard BHP (kW)/fan	13.13						
Percentage diameter	100%	Temperature (°C)	21						
Cross wind velocity (km/hr)	16	Altitude (m)	0						
		Density (kg/m³)	1.201						
		Max RPM for Class	2294						
		Static Efficiency	56.40						
		Total Efficiency	80.84						
		Fan Efficiency Grade	FEG85						
		Nozzle outlet area (m²)	0.3						
		Nozzle outlet vel. (m/sec)	32.9						
		Induced flow (m³/hr)	24,185						
		Total System Flow (m³/hr)	59,785						
		Dilution ratio	178%						
		Entrainment ratio	168%						
		Plume height (m)	17.8						
		Windband outlet area (m²)	1.001						
		Windband outlet vel. (m/sec)	16.59						
Modifiers									
2 fans operating in system, Plenum Mixing Box, Isolation Damper									
Sound									
Individual Sound Power Levels in dB re. 10-12Watts:									
Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	96	95	96	87	85	83	80	77	92
Level at Outlet	95	95	91	88	86	83	79	75	91
Total Package Sound Power Levels in dB re. 10-12Watts:									
Octave Bands	1	2	3	4	5	6	7	8	LwA
Level at Inlet	99	98	99	90	88	86	83	80	95
Level at Outlet	98	98	94	91	89	86	82	78	94

FIG. 6

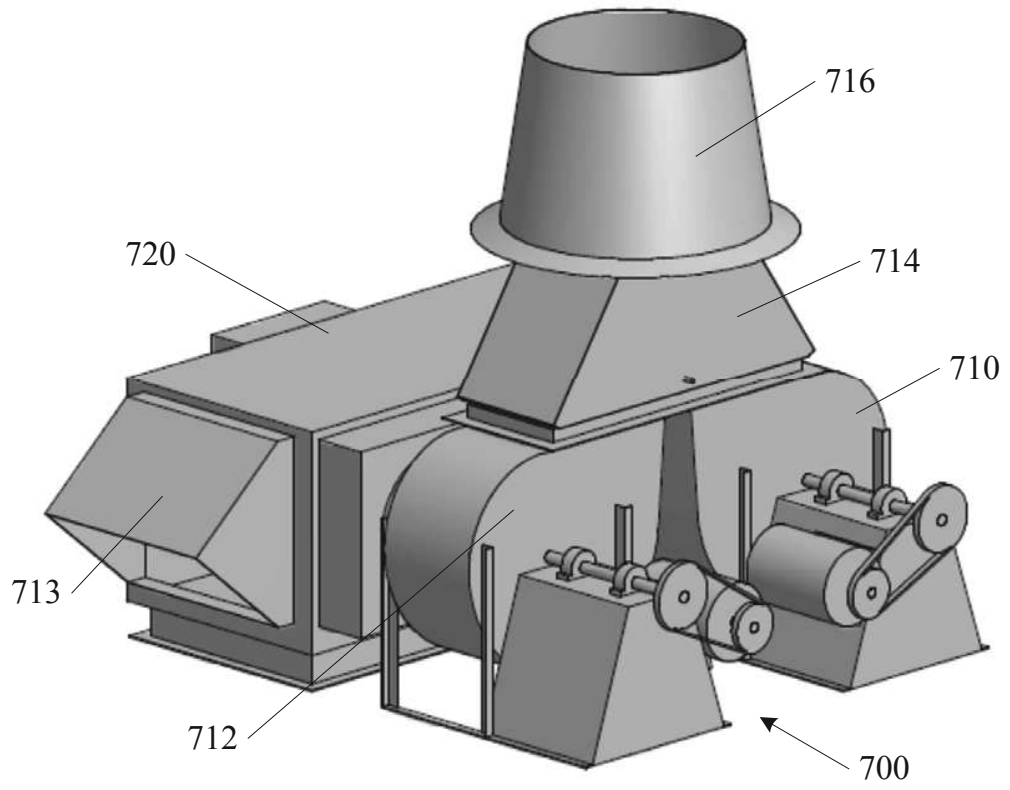


FIG. 7A

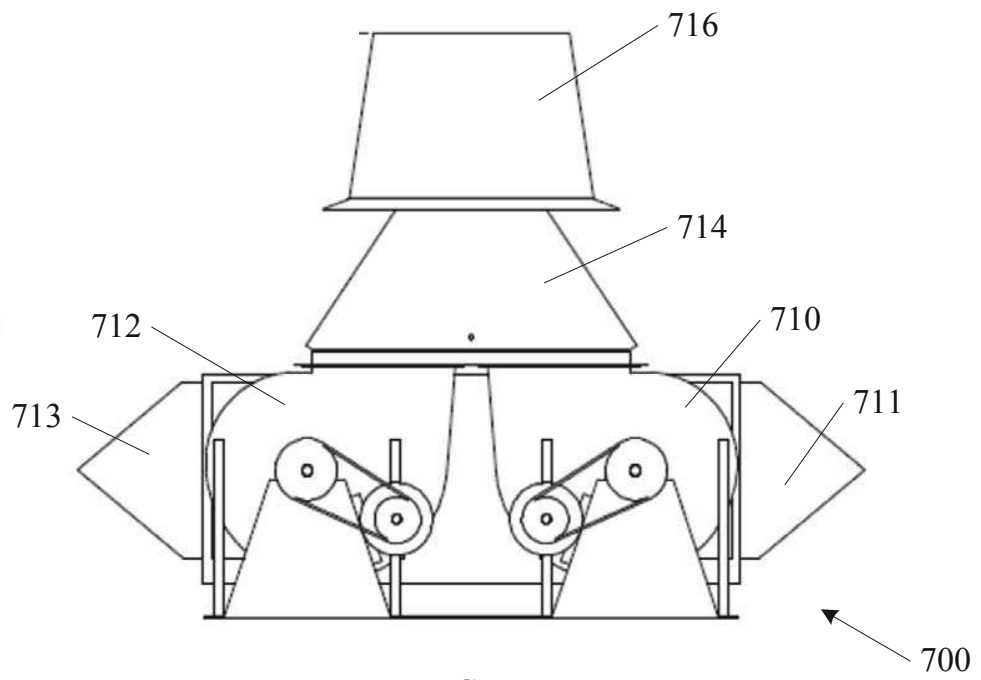


FIG. 7B

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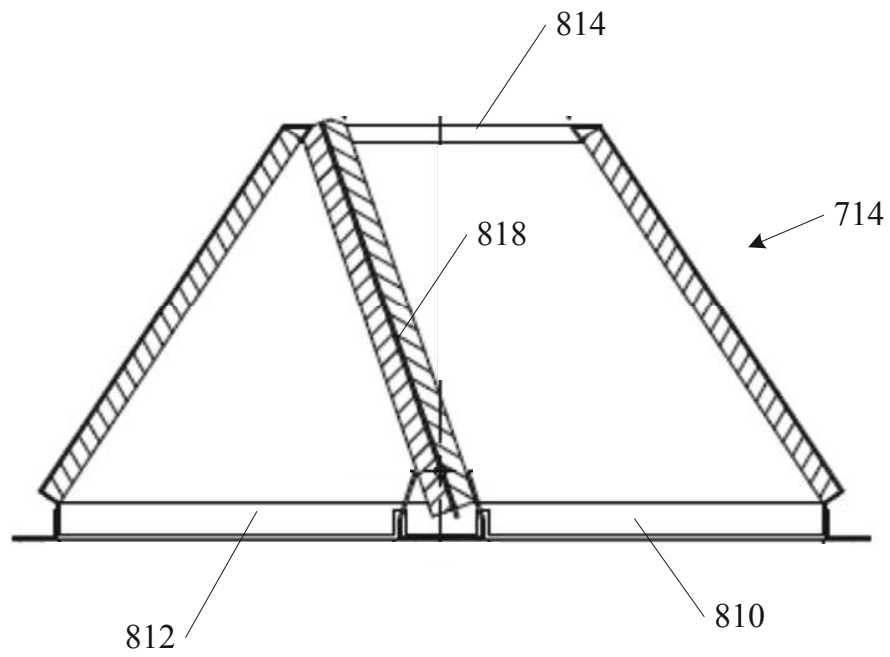


FIG. 8A

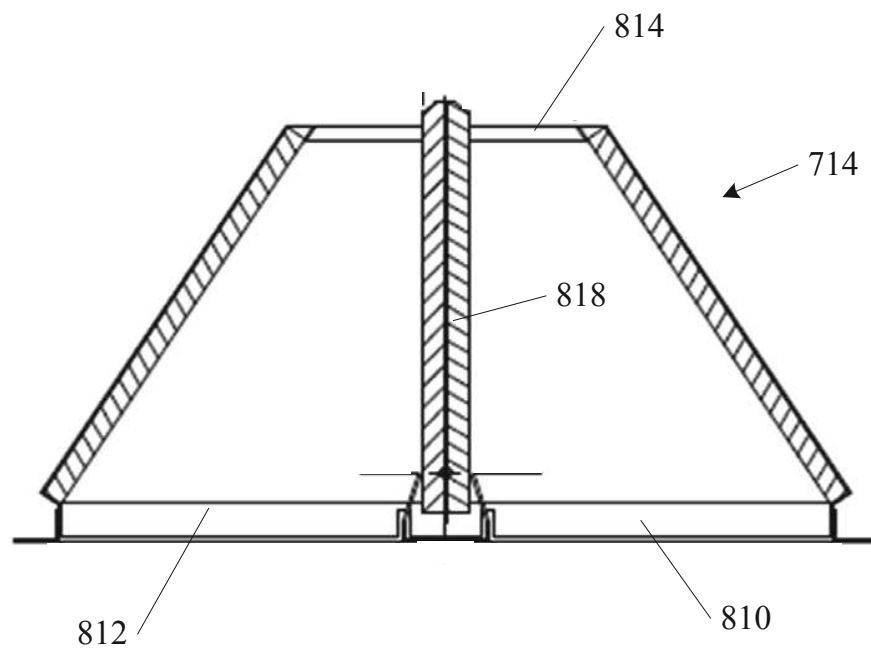


FIG. 8B

