

Project : Standard Range
Item 9 - Ref : 125hp

07/03/2024

Gas Properties :

Abs Inlet Pressure: 406.78 ins wg
Operating Temp: 20 Deg.C.
Humidity: 0 %
Specific Gravity: 1.0
Inlet Density: 1.204 Kg/m3
Dust Load: 0 g/m3

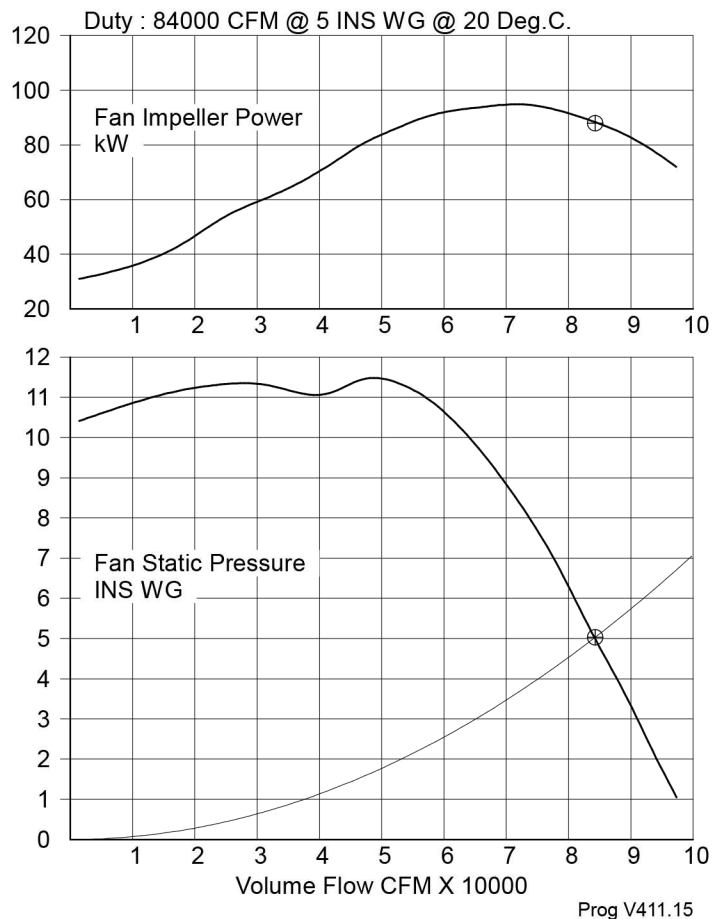
Duty Required :

Inlet Volume Flow: 84000 cfm
Fan Static Pressure:
Inlet Pressure: -0 ins wg
Outlet Pressure: 5 ins wg

Fan Selected :

SWSI-BCW-1420/100-99
Speed: 950 Rpm
Impeller Ø: 1420 mm
Fan Class: 3

Impeller Power :
@ 20 Deg C : 88.0 kW
@ Duty Temp: 88.0 kW
Tip Speed: 70.6 m/s
Inlet Velocity: 23.6 m/s
Outlet Velocity: 19.4 m/s
Temp Rise: 1.8 Deg.C.



<u>Noise Details :</u>	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
Internal SWL dB	118	113	112	107	102	97	95	88	120
Free Inlet SPL dBA	83	91	98	99	97	93	91	82	104
Free Outlet SPL dBA	83	91	97	98	96	92	90	81	103
Outside Casing dBA	70	74	77	78	76	72	70	59	83

Motor noise is NOT included in the figures above.

Sound Pressure levels (SPL) are estimated within the Near Field range at 1 metre(s)

Breakout at 1 metre from 5 mm thick casing (inside Near Field range).

Casing levels assume the inlet / outlet are ducted and noise does not breakout through duct.

All values are averages. Free Inlet assumes that outlet is ducted and vice versa.

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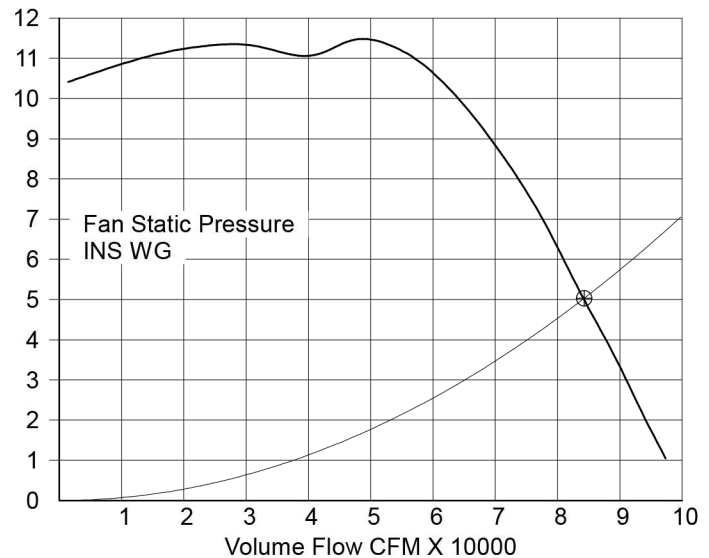
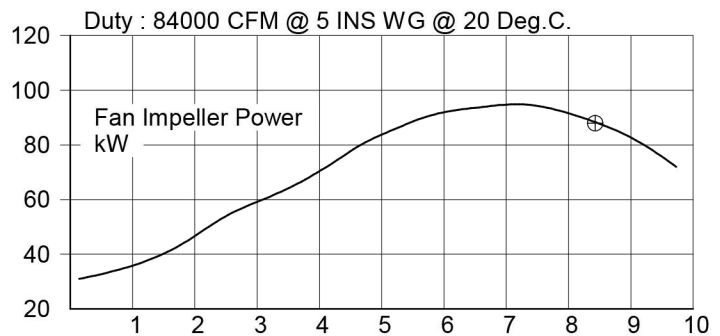
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Noise Details :

	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
Internal SWL dB	118	113	112	107	102	97	95	88	120
Free Inlet SPL dBA	63	71	78	79	77	73	71	62	84
Free Outlet SPL dBA	64	72	78	79	77	73	71	62	84
Outside Casing dBA	52	56	59	60	58	54	52	41	65

Motor noise is NOT included in the figures above.

Sound Pressure levels (SPL) assume Free Field Hemispherical Radiation at 5 metre(s)

Breakout at 5 metre from 5 mm thick casing (inside Near Field range).

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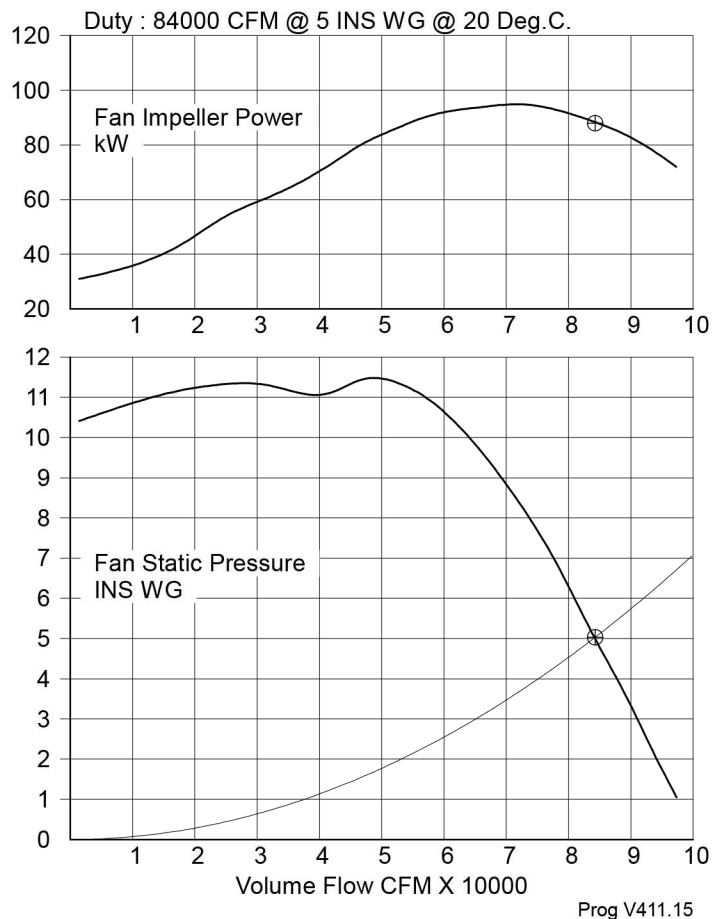
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<u>Noise Details :</u>	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
Internal SWL dB	118	113	112	107	102	97	95	88	120
Free Inlet SPL dBA	53	61	68	69	67	63	61	52	74
Free Outlet SPL dBA	54	62	68	69	67	63	61	52	74
Outside Casing dBA	37	41	44	45	43	39	37	26	50

Motor noise is NOT included in the figures above.

Sound Pressure levels (SPL) assume Free Field Hemispherical Radiation at 15 metre(s)

Breakout at 15 metre from 5 mm thick casing.

Casing levels assume the inlet / outlet are ducted and noise does not breakout through duct.

All values are averages. Free Inlet assumes that outlet is ducted and vice versa.

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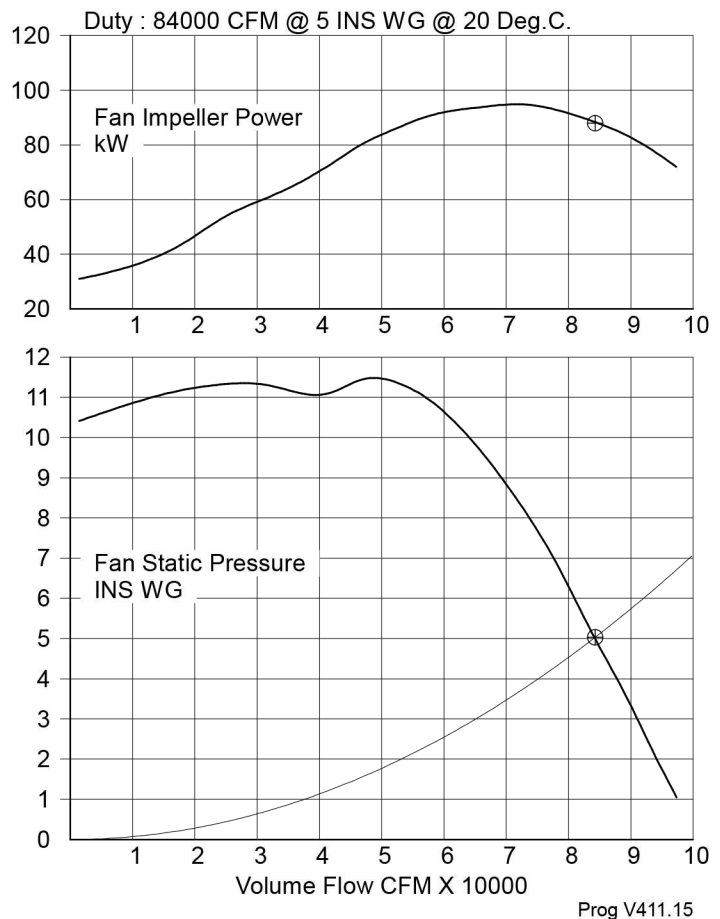
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<u>Noise Details :</u>	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
Internal SWL dB	118	113	112	107	102	97	95	88	120
Free Inlet SPL dBA	47	55	62	63	61	57	55	46	68
Free Outlet SPL dBA	48	56	62	63	61	57	55	46	68
Outside Casing dBA	31	35	38	39	37	33	31	20	44

Motor noise is NOT included in the figures above.

Sound Pressure levels (SPL) assume Free Field Hemispherical Radiation at 30 metre(s)

Breakout at 30 metre from 5 mm thick casing.

Casing levels assume the inlet / outlet are ducted and noise does not breakout through duct.

All values are averages. Free Inlet assumes that outlet is ducted and vice versa.

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