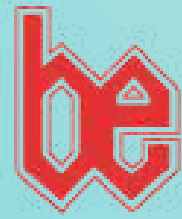
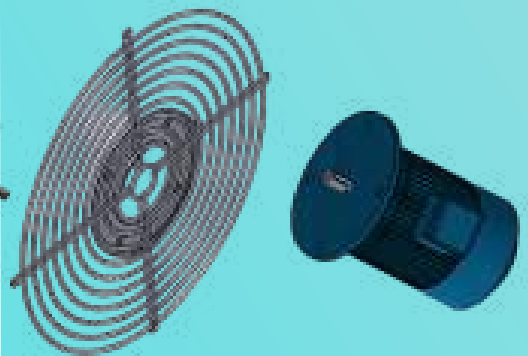
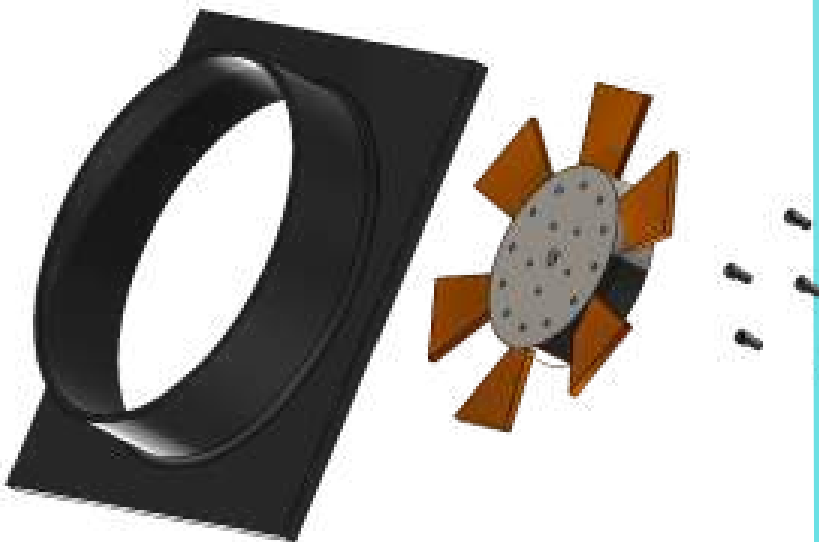


EXHAUST WALL MOUNTED AXIAL FAN

Brilliant Engineering Co.





BEST SOLUTION FOR BETTER ATMOSPHERE




contact us

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prepared by : Tender Team
Revised by : Eng/Ayman Gaber
Approved by : Eng/Ayman Gaber



Brilliant Engineering Co.

Brilliant Engineering was founded in 2009 by Eng. Ayman Gaber, to become one of the Leading Full Engineering Services in Egypt, with an outstanding portfolio of expertise in Construction and MEP fields, serving and completing projects in various regions all around the country.

Brilliant offers Turnkey project solutions, starting from concept, pre-design, preparation of shop drawings, technical submittals and obtaining approvals, all the way to finishing and preparation of the final as-built drawings. We also provide after sales services, maintenance and on-site training, as well as, distributing several spare-parts throughout the country.

Our Main Specialization:

Industrial Ventilation Systems

- Industrial Air Filtration Systems
- Central Air Conditioning Systems
- Industrial Environmental Treatment
- Duct Work

HasconWing :

Hascon Engineering has been operating in the ventilation field for more than thirty years and our reliable and high quality axial impellers are the result of this rich experience. Since 1997 we have been operating in compliance with ISO 9001 standards, with each phase, starting from the procurement of material passing through all of the process sequences until post sales support, being carried out according to well tested and continuously improving criteria, permitting us to emerge in the international market due to our high quality, efficiency and timeliness, making us a leading company in this sector. In addition, the HasconWing product range, thanks to the numerous types (impeller diameters from 200 to 1275mm and multiple configurations of blade profiles and setting angles), permits to create customized solutions for all air movement needs.

Applications of HW :

- Heat Exchangers
- Axial ventilatory.
- Generators.
- Air Conditioning.
- Radiators.
- Cooling Towers.
- Hovercrafts.
- Blowing Units.

Blades Feature :

- **TM** impellers are manufactured assembling airfoil profile blades with a light aluminum alloy hub. The impellers are thought to be employed in applications that require the highest rotation speeds. The impellers are available in configurations with **5/9/12/16 blades** both for clockwise and anticlockwise rotation. Blades are available in two models: **N and V**, with right or left setting angles ranging from 20° to 50°. TM impellers can produce a sucking or blowing air flow.
- **TS** impellers are manufactured assembling airfoil profile blades with a light aluminum alloy hub. The impellers are thought to be employed in applications that require the highest rotation speeds. The impellers are available in configurations with **6/8/10/14/20 blades** both for clockwise and anticlockwise rotation. TS blades are available in two models: **G, and D**, with right or left fixed setting angles ranging from 25° to 50°. TS impellers can produce a sucking or blowing air flow.
- **C-ALU** impellers shape has been designed to produce higher air flow rates, while ensuring high efficiency and low noise emission levels. C-ALU impellers are thought to be employed in high temperature and corrosive environments and are manufactured assembling airfoil profile blades made of aluminum, with a light aluminum alloy hub. The impellers are available in configurations with 5/9/12/16 blades. Blades are available in two models: **regular (CL) and short (CL-S) blades**, with left setting angles ranging from 25° to 50°. C-ALU fans can produce a sucking or blowing air flow.



C-ALU Impeller



TS Impeller



TM Impeller

HW Certifications :

HW Ventilation is an **ISO 9001** Certified Company.

Our Fans have been tested in **AMCA210/07** wind tunnel and comply with the requirements of EU directive 2015 on energy Efficiency.



Motor Specifications :

HW roof axial exhaust fans provided with 280/220 V /50HZ B3-B5 Constructed electric moto, IP-55 and IE 2. Insulation Class is F, In accordance with IEC 60034-1. (Foregin Origin)



B5Motor



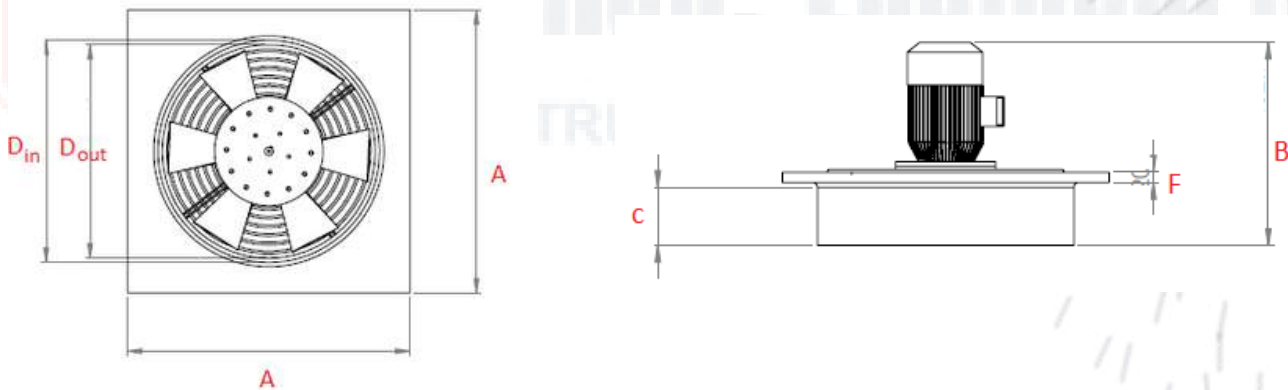
B3 Motor

Fan Feature :

Brilliant Engineering Co. is an agent and distributor for the Italian Hasconwing Ventilation HW ventilation is a leading company in the field of axial impellers and ventilators for industrial applications. With their 30-year experience in the international market, wide range of products: airfoil profile axial impellers (fixed and variable pitch angle blades) made of PPG, PAG, ALU, RYT, PAA, PAX and PAM. to make sure that our customers having the best performance.

Our wall mounted axial ventilator for supply and exhaust air out of brilliant workshops made of carbon steel case and HW impellers to satisfy our clients requirements with best performance. With a flow rate range of 4000 – 39000 m3/hr.

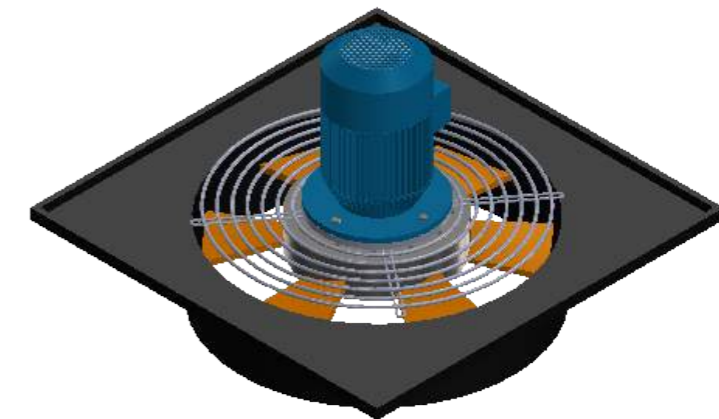
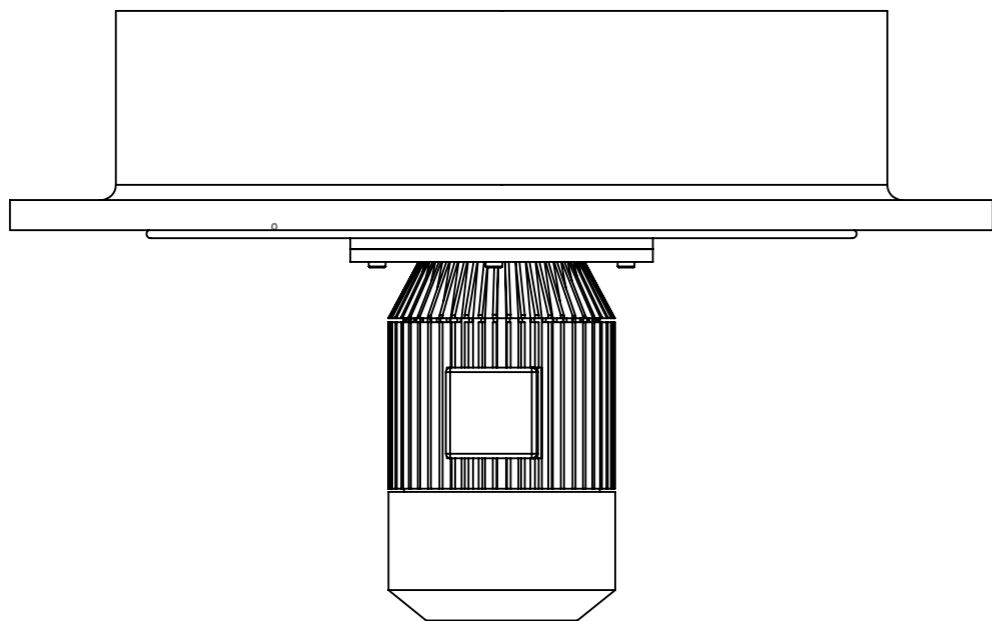
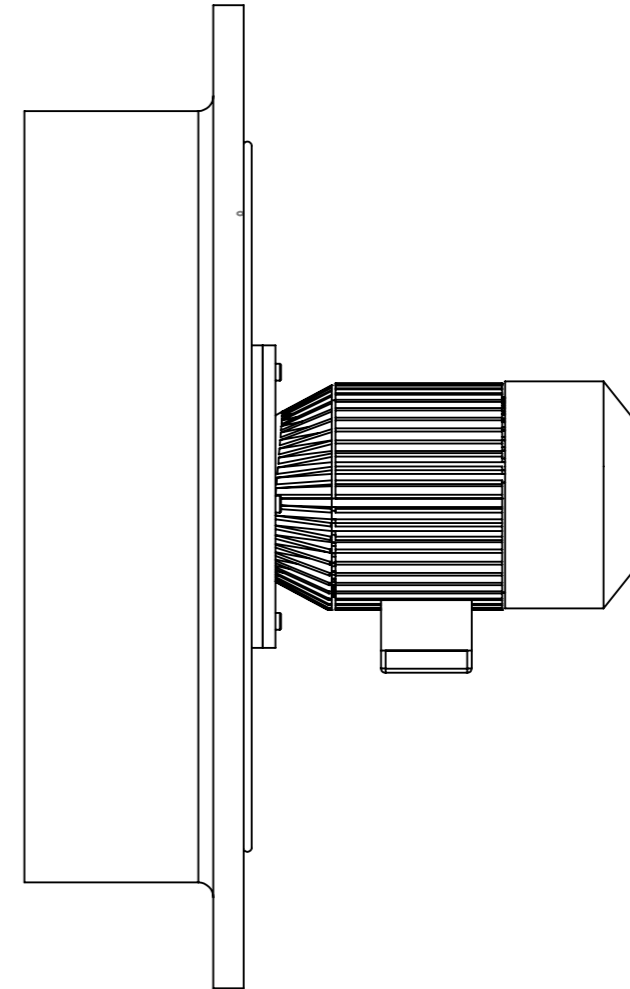
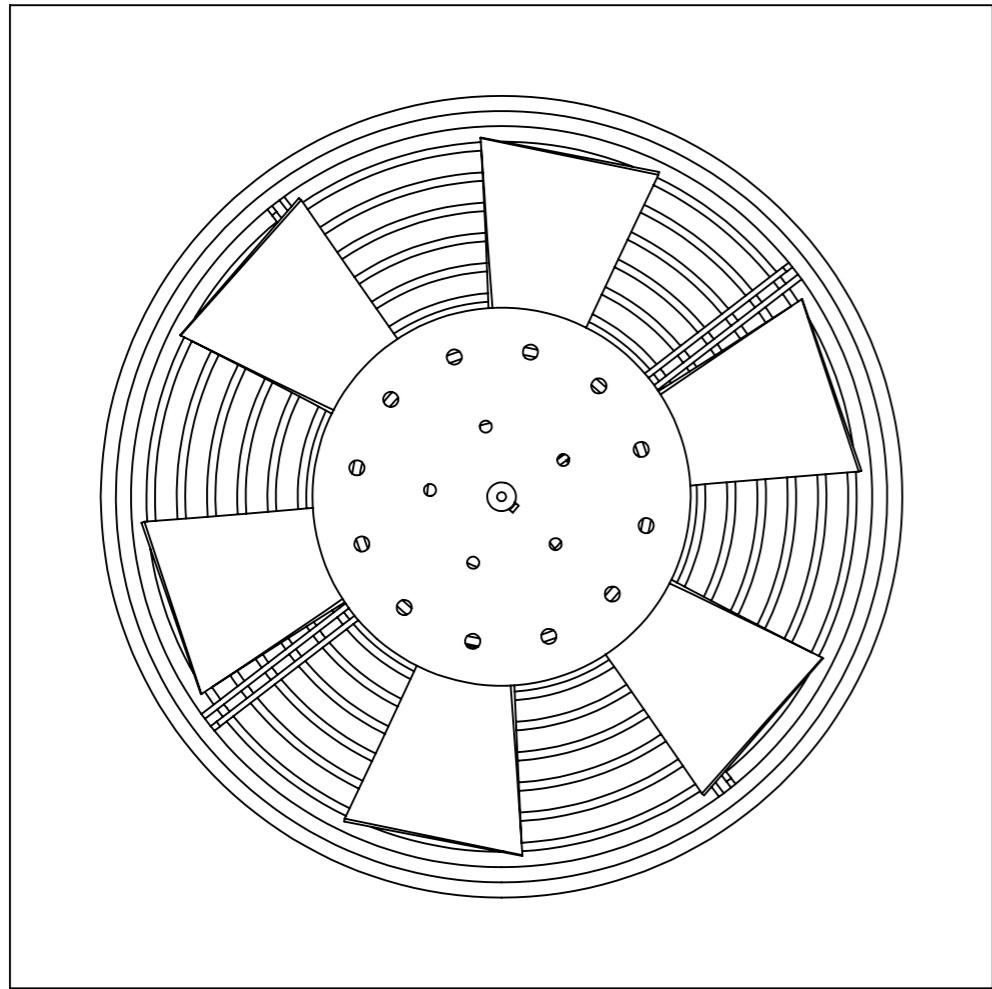
HW Exhaust Wall Axial Fans Are Available 9 Different Sizes with Operating limits Specifications as Follow:



Exhaust Wall mounted

Size	785	710	630	560	500	450	400	355	300
Model	HW 785 · 5.5 · 45° · N · PPG	HW 710 · 10 · 10 · 50° · D · PPG	HW 630 · 10 · 5 · 50° · D · PPG	HW 560 · 10 · 5 · 50° · D · PPG	HW 500 · 10 · 5 · D · PPG 50°	HW 450 · 10 · 5 · D · PPG 50°	HW 400 · 10 · 5 · D · PPG 50°	HW 355 · 10 · 5 · 50° · D · PPG	HW 300 · 10 · 10 · 50° · D · PPG
Flow Rate (CMH)	22,090	20,770	18,750	14,350	10,300	7,567	5,265	3,947	2,219
Static Pressure (Pa)	47.44	10.93	10.93	10.59	16.71	10.39	17.44	9.94	14.10
Speed (RPM)	960	960	1,440	1,440	1,440	1,440	1,440	1,440	1,440
Motor (kw)	2.2	1.5	1.5	1.1	0.75	0.55	0.37	0.25	0.25
Dimensions	All dimensions in cm								
frame size "A"	97	88	80	70	66	57.5	55	48	43
c	17	16	15	13	11	10	9	9	9
b	48.05	43.5	42.5	40.5	34.4	33.4	30.4	30.4	30.4
Din	78.5	71	63	56	50	45	40	35.5	30
Dout	83.5	76	68	61	55	50	45	40.5	35
F	2	2	1.5	1.5	1.5	1.5	1.5	1.5	1.5





Company		 Brilliant Engineering <small>CONSTRUCTIONS, HVAC, FILTRATION</small>	
	NAME	DATE	
DRAWN	Eng/ Ahmed waleed	22/6/2020	
CHK'D	Eng/ Ayman Gaber	22/6/2020	
CHK'D	Eng/ shady	22/6/2020	
APPV'D	Eng/ Ayman Gaber	22/6/2020	
DWG NO. EXH.wall mounted axial fan			A3
SCALE: 1:5			SHEET 1 OF 1

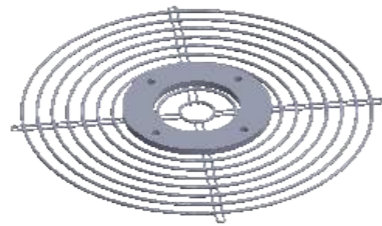
B5-MOTOR



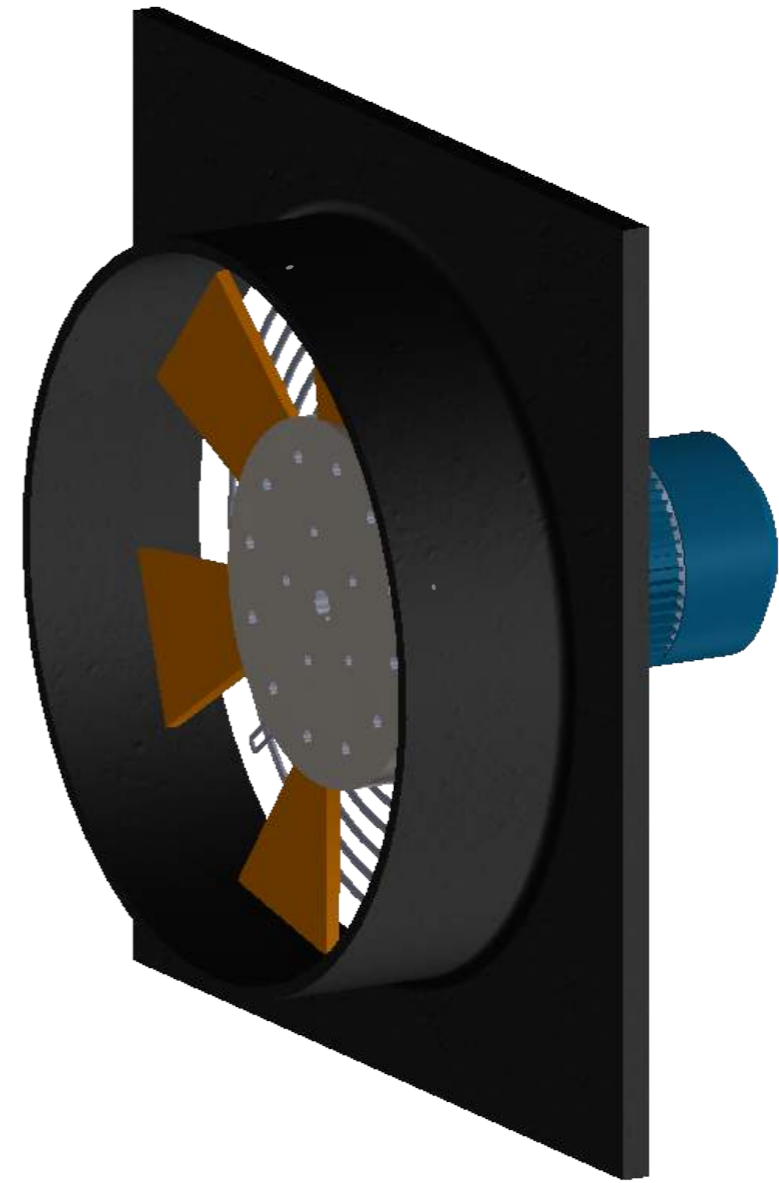
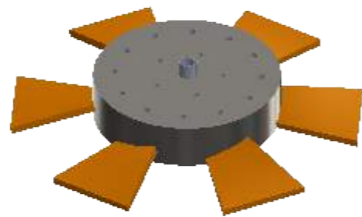
FRAME



SCREEN



Imppler



	NAME	DATE
DRAWN	ENG/ AHMED waleed	
CHK'D	ENG/ AYMAN GABER	
CHK'D	ENG/ SHADY	
APP.	ENG/ AYMAN GABER	



Exh. wall mounted axial fan

A3

IMPELLER HW 300 - 10-10 - 50° - D - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 300 [mm]

Tip clearance (%R) : 1

Blade : D

Angle : 50°

Rotation speed : 1440 [RPM]

Material : PPG

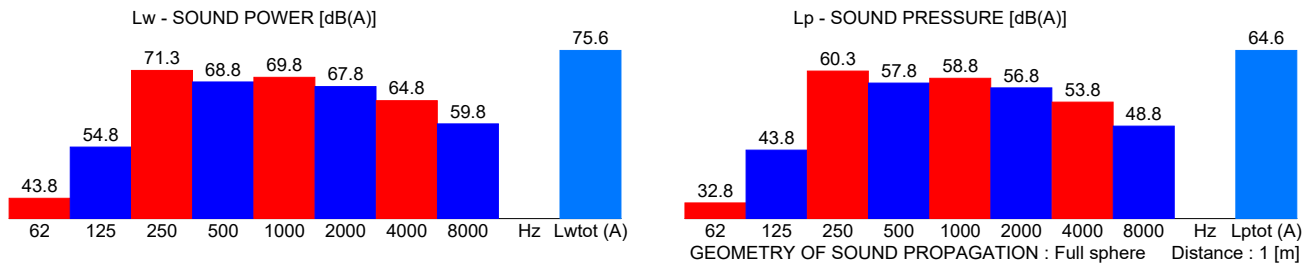
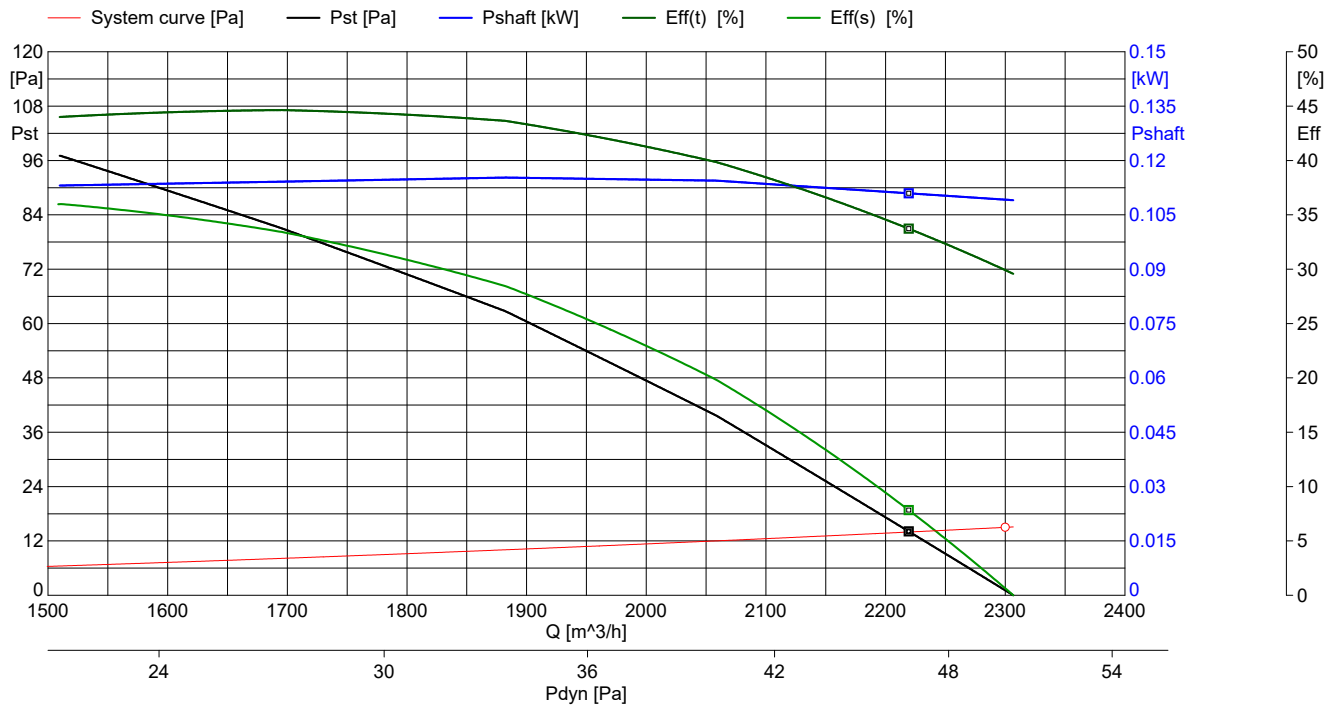
Hub-Blade : 10-10

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
2219	14.1	46.59	60.69	0.1109	33.7	75.64

Mechanical info :

Axial force[N]	Shaft torque[N*m]	Tip speed[m/s]	Air speed[m/s]
4.29	0.7357	22.62	8.722



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

IMPELLER HW 355 - 10-5 - 50° - D - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 355 [mm]

Tip clearance (%R) : 1

Blade : D

Angle : 50°

Rotation speed : 1440 [RPM]

Material : PPG

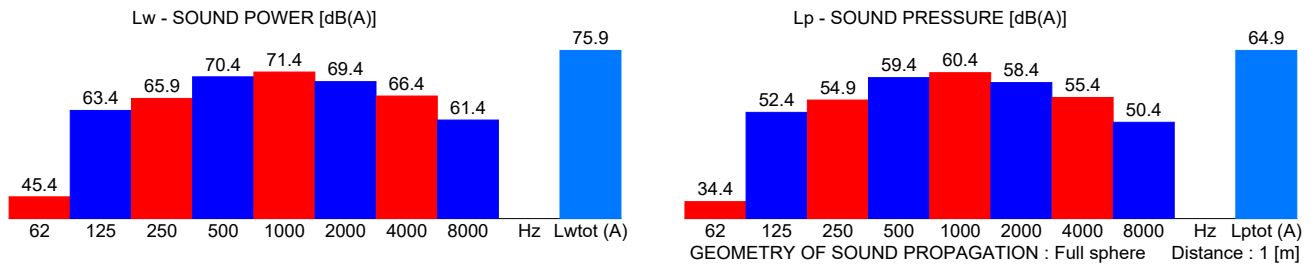
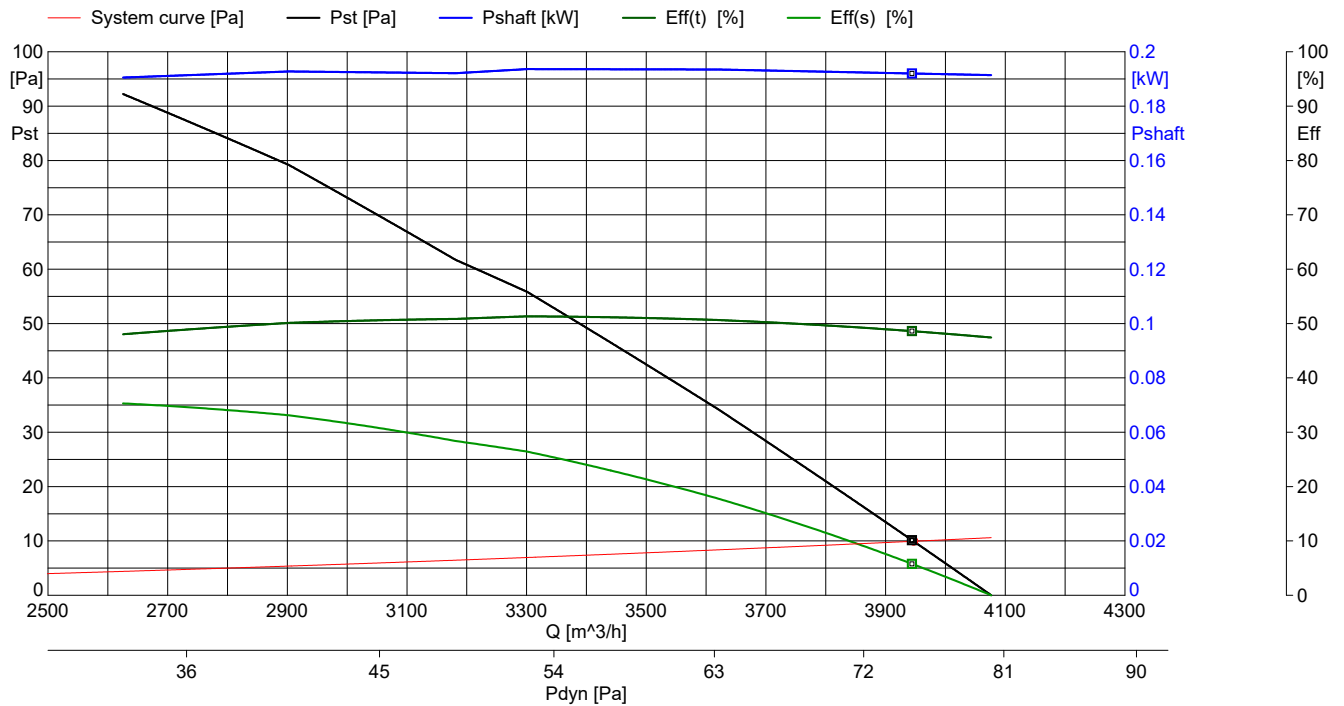
Hub-Blade : 10-5

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
3944	10.13	75.05	85.18	0.192	48.6	75.94

Mechanical info :

Axial force[N]	Shaft torque[N*m]	Tip speed[m/s]	Air speed[m/s]
8.431	1.273	26.77	11.07



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

IMPELLER HW 400 - 10-5 - 50° - D - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 400 [mm]

Tip clearance (%R) : 1

Blade : D

Angle : 50°

Rotation speed : 1440 [RPM]

Material : PPG

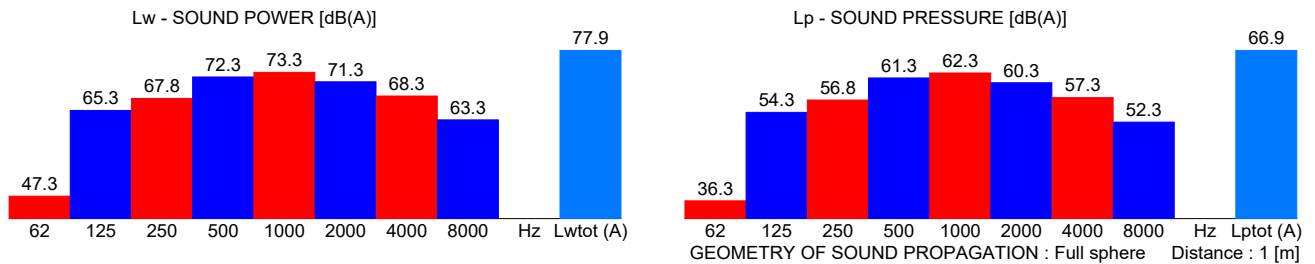
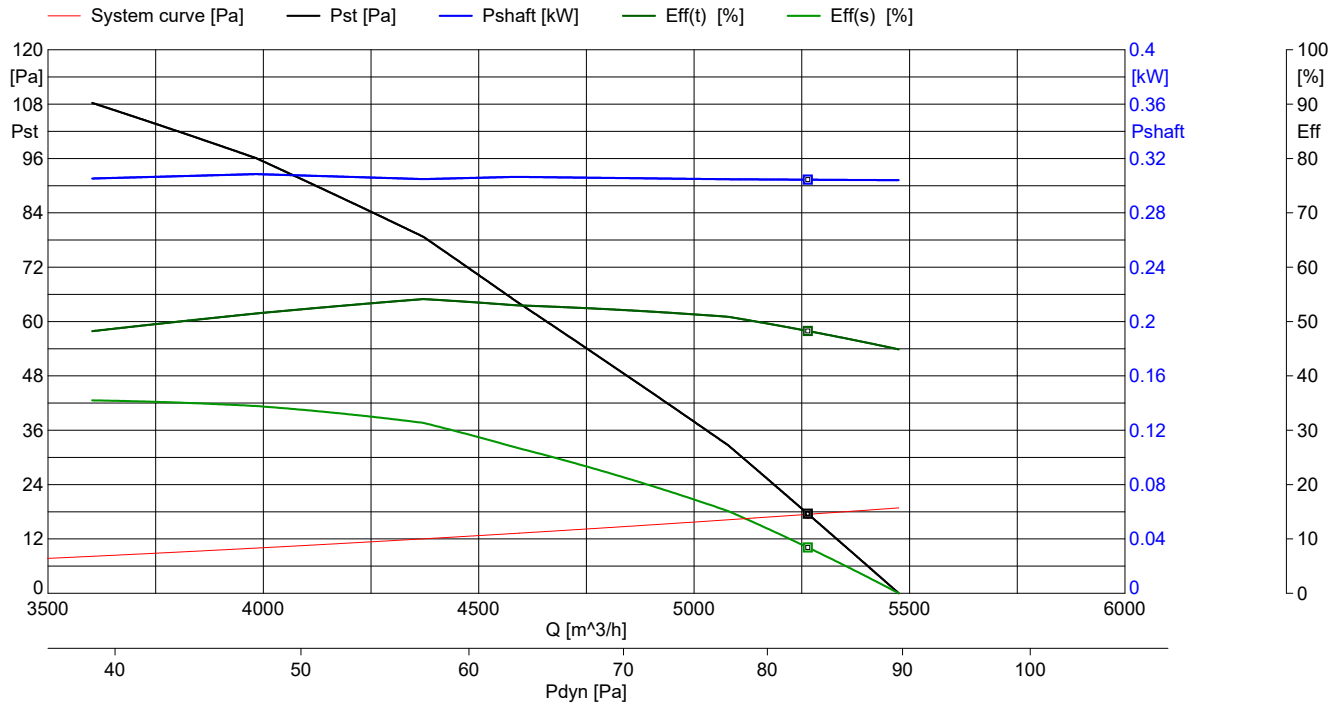
Hub-Blade : 10-5

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
5264	17.55	82.93	100.5	0.3044	48.3	77.85

Mechanical info :

Axial force[N]	Shaft torque[N*m]	Tip speed[m/s]	Air speed[m/s]
12.63	2.019	30.16	11.64



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

IMPELLER HW 450 - 10-5 - 50° - D - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 450 [mm]

Tip clearance (%R) : 1

Blade : D

Angle : 50°

Rotation speed : 1440 [RPM]

Material : PPG

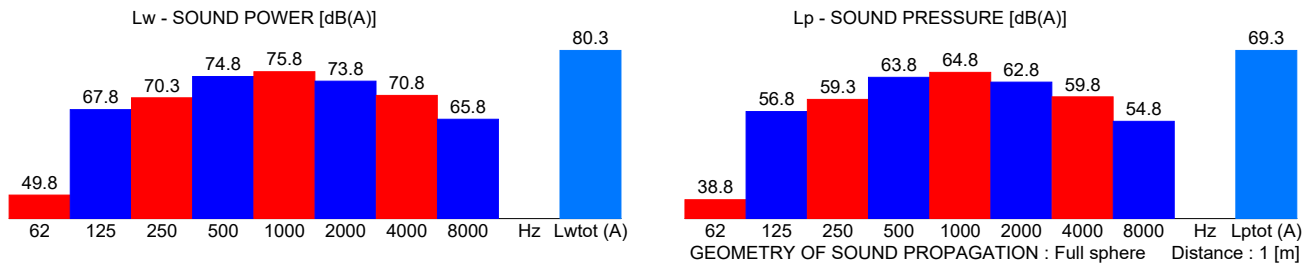
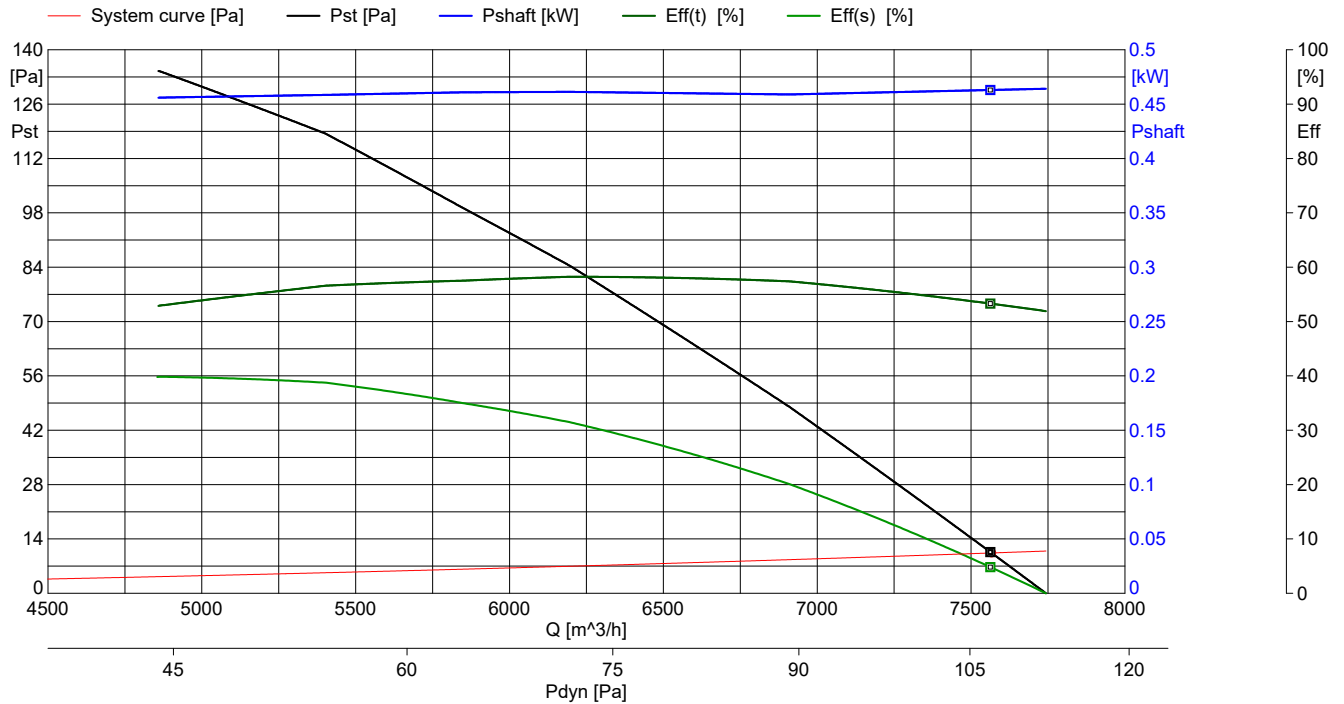
Hub-Blade : 10-5

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
7563	10.6	106.9	117.5	0.463	53.3	80.33

Mechanical info :

Axial force[N]	Shaft torque[N*m]	Tip speed[m/s]	Air speed[m/s]
18.68	3.071	33.93	13.21



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

IMPELLER HW 500 - 10-5 - 50° - D - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 500 [mm]

Tip clearance (%R) : 1

Blade : D

Angle : 50°

Rotation speed : 1440 [RPM]

Material : PPG

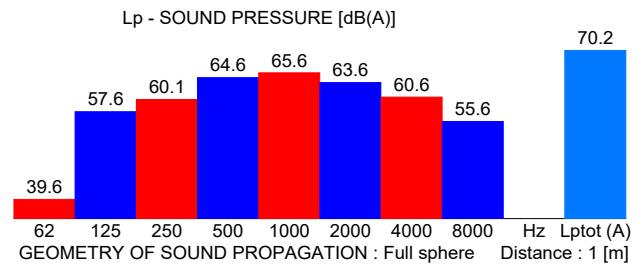
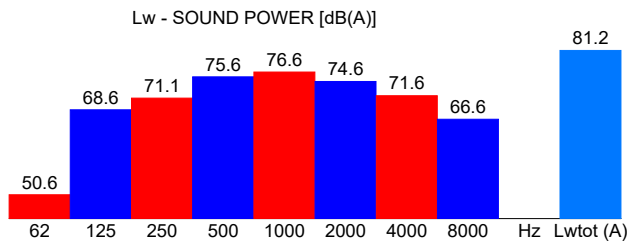
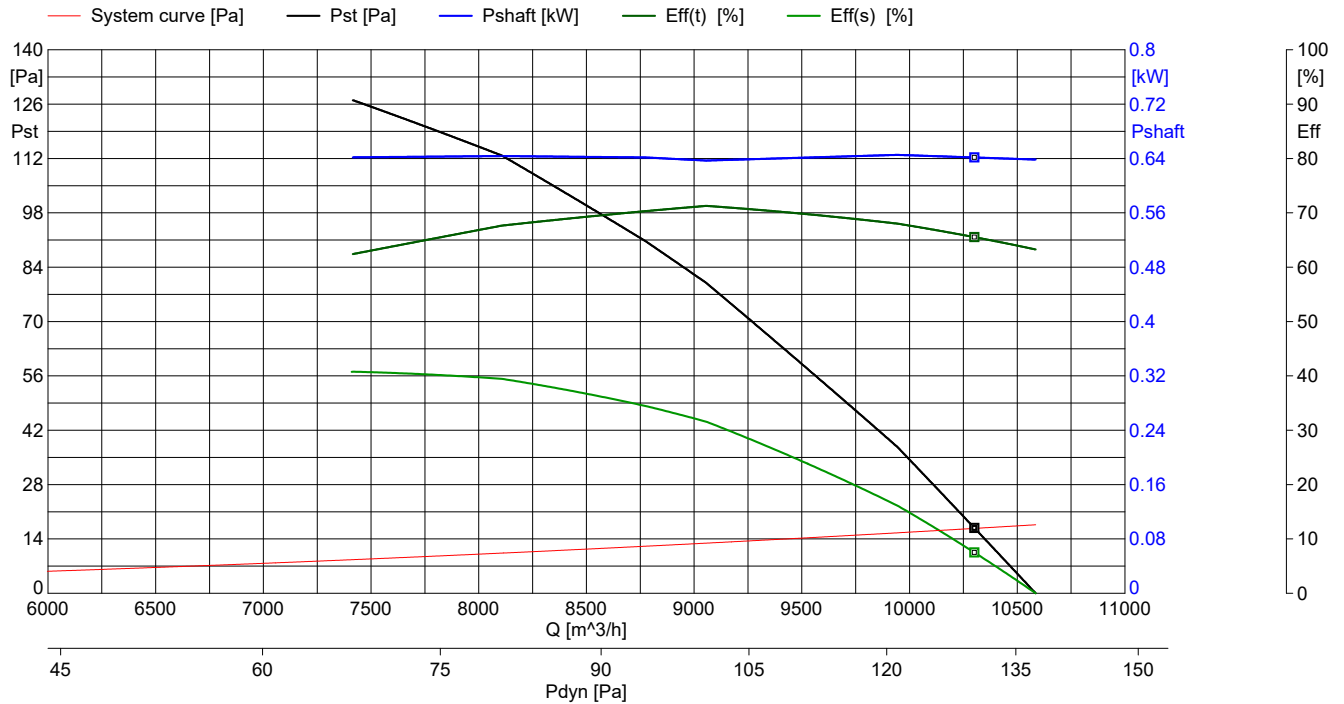
Hub-Blade : 10-5

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
10300	16.84	130.1	146.9	0.6415	65.5	81.18

Mechanical info :

Axial force[N]	Shaft torque[N*m]	Tip speed[m/s]	Air speed[m/s]
28.85	4.254	37.7	14.57



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

IMPELLER HW 560 - 10-5 - 50° - D - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 560 [mm]

Tip clearance (%R) : 1

Blade : D

Angle : 50°

Rotation speed : 1440 [RPM]

Material : PPG

Hub-Blade : 10-5

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
14350	10.67	160.5	171.2	0.9415	72.5	82.26

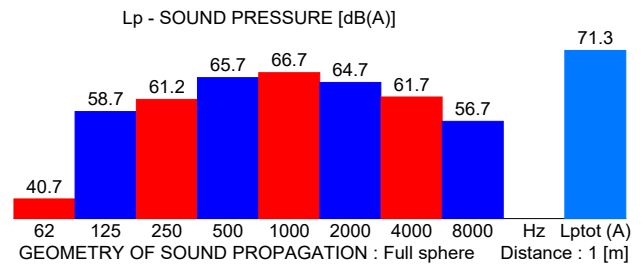
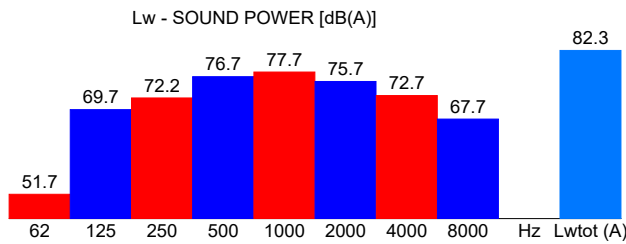
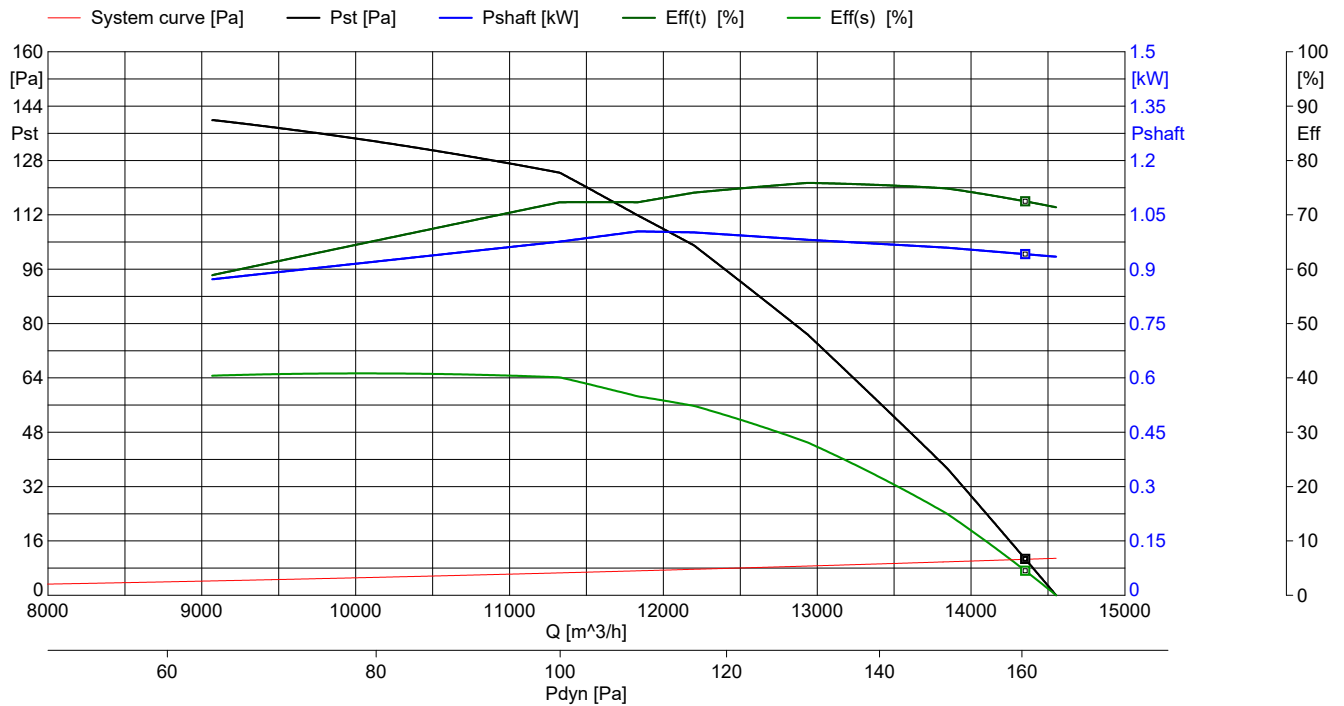
Mechanical info :

Axial force[N]
42.16

Shaft torque[N*m]
6.243

Tip speed[m/s]
42.22

Air speed[m/s]
16.19



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

IMPELLER HW 630 - 10-5 - 50° - D - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 630 [mm]

Tip clearance (%R) : 1

Blade : D

Angle : 50°

Rotation speed : 1440 [RPM]

Material : PPG

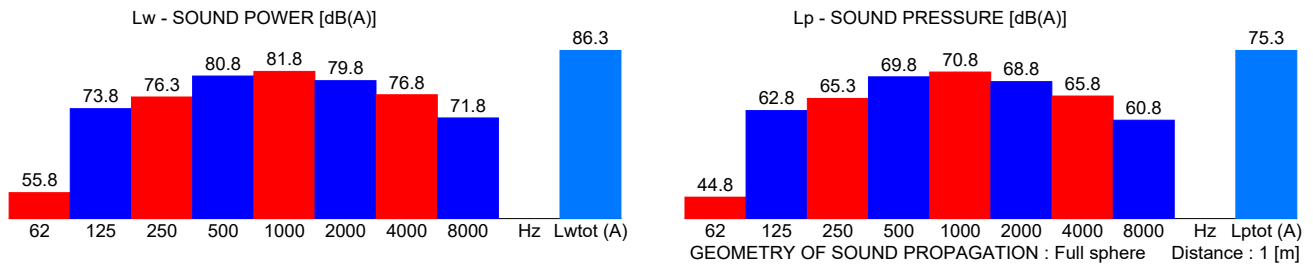
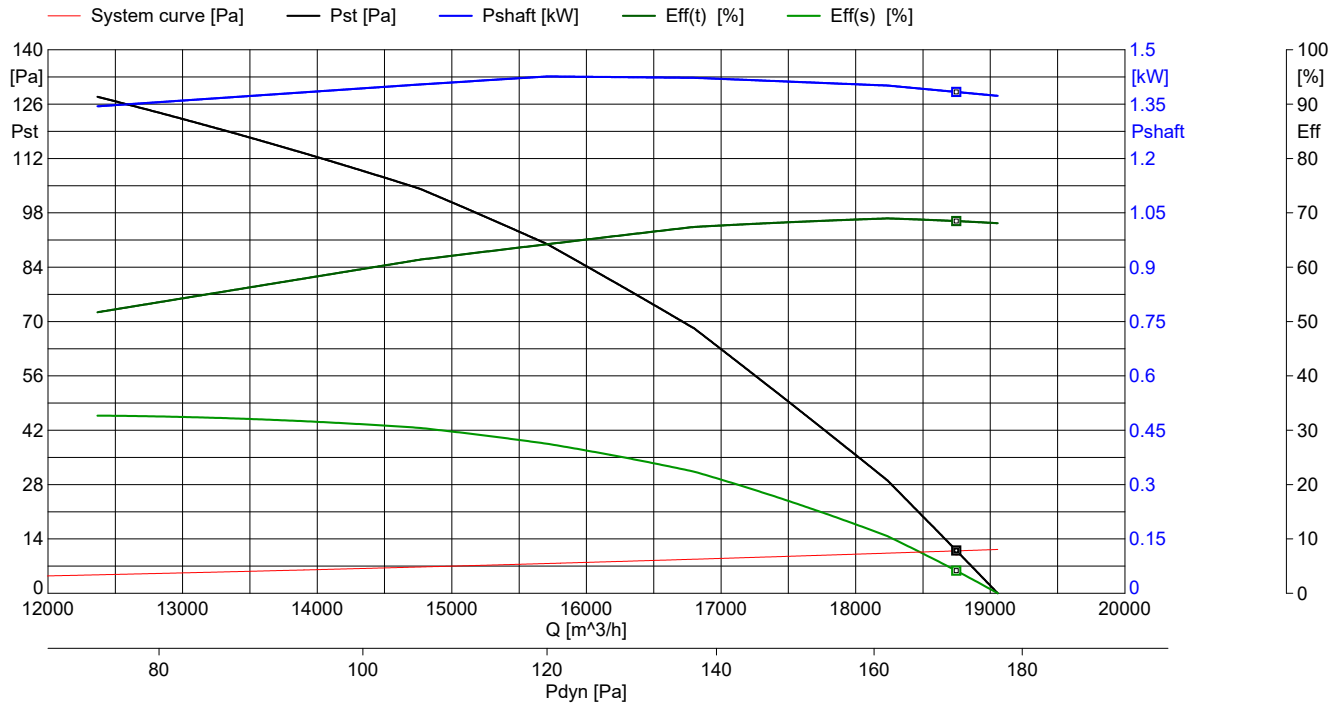
Hub-Blade : 10-5

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
18750	11	171	182	1.384	68.5	86.32

Mechanical info :

Axial force[N]	Shaft torque[N*m]	Tip speed[m/s]	Air speed[m/s]
56.72	9.175	47.5	16.71



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

IMPELLER HW 710 - 10-10 - 50° - D - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 710 [mm]

Tip clearance (%R) : 1

Blade : D

Angle : 50°

Rotation speed : 960 [RPM]

Material : PPG

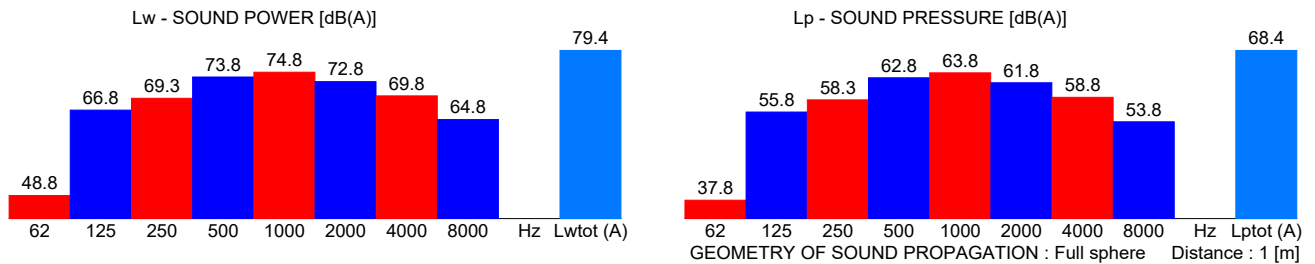
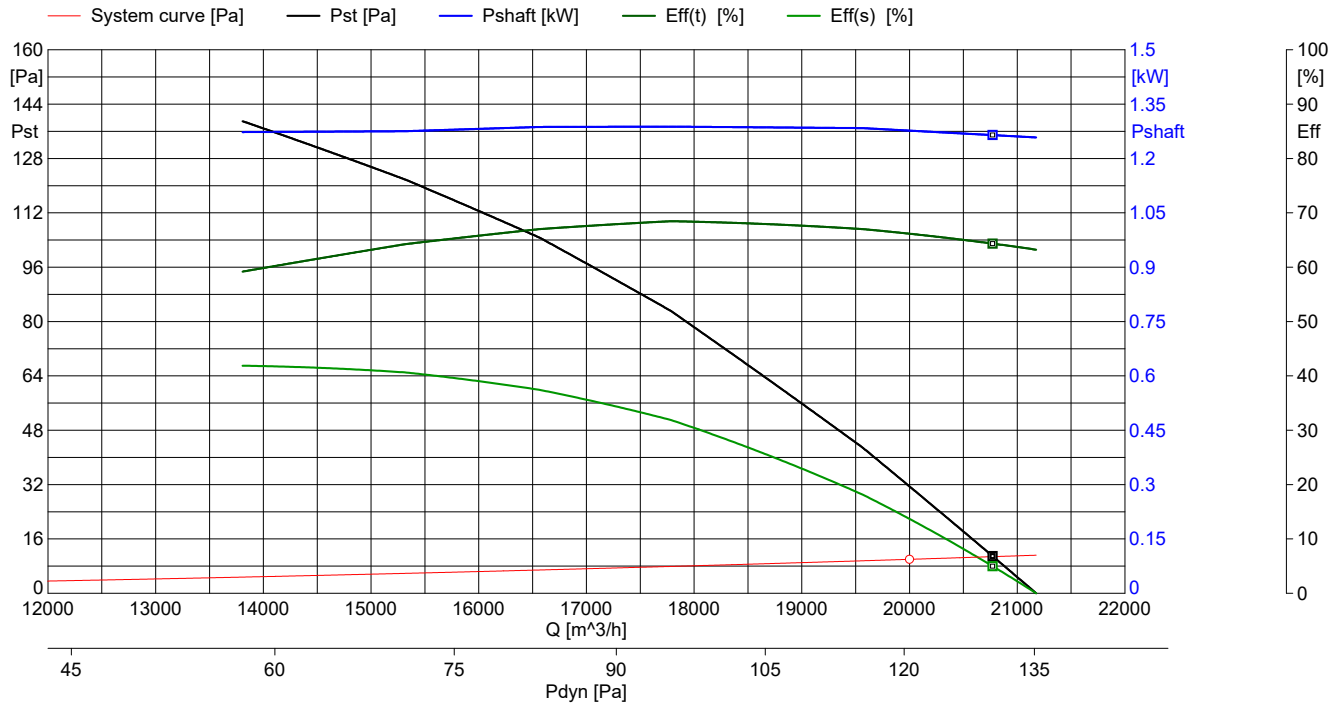
Hub-Blade : 10-10

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
20770	10.93	130.1	141	1.265	64.3	79.36

Mechanical info :

Axial force[N]	Shaft torque[N*m]	Tip speed[m/s]	Air speed[m/s]
55.83	12.58	35.69	14.57



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

IMPELLER HW 785 - 5-5 - 45° - N - PPG

Date : 22/6/2020

To :
Telephone no. :

Fluid properties :

Density : 1.225 [kg/m³]

Temperature : 15 [deg. C]

Impeller properties :

Diameter : 785 [mm]

Tip clearance (%R) : 1

Blade : N

Angle : 45°

Rotation speed : 960 [RPM]

Material : PPG

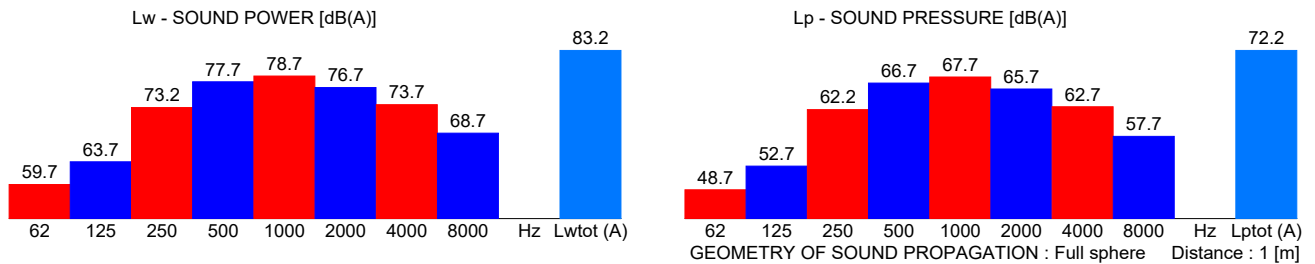
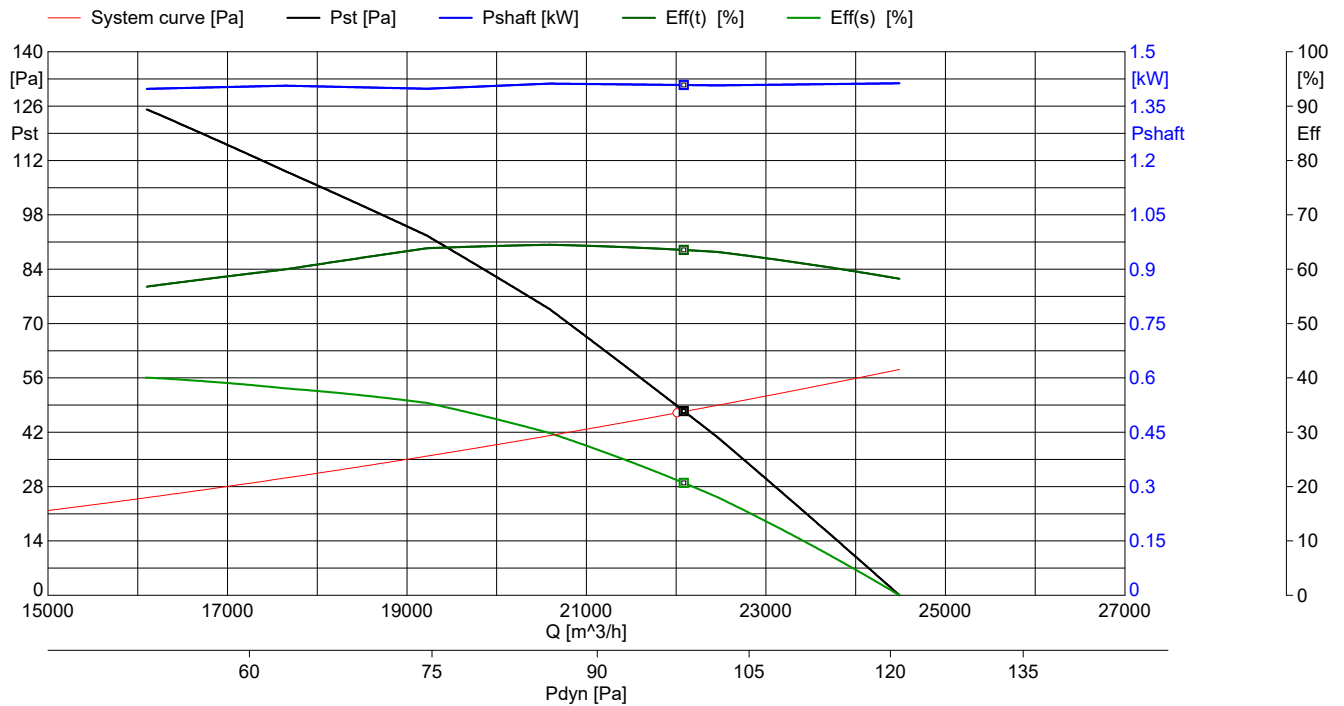
Hub-Blade : 5-5

Working point :

Q[m ³ /h]	Pst[Pa]	Pdyn[Pa]	Ptot[Pa]	Pshaft[kW]	Eff(t) [%]	Lwt[dB(A)]
22090	47.44	98.42	145.9	1.408	63.5	83.2

Mechanical info :

Axial force[N]	Shaft torque[N*m]	Tip speed[m/s]	Air speed[m/s]
70.59	14.01	39.46	12.68



Warning : different applications may have a different impact on the air performance and sound performance of the impellers.

HW Ventilation is an ISO 9001 certified company

Our Client



Thank you!

FOR BEING ONE OF OUR CLIENTS



Brilliant Engineering
CONSTRUCTIONS, HVAC, FILTRATION

BEST SOLUTION FOR BETTER ATMOSPHERE