

AXIAL FANS

Direct Driven
WAX Series



TEB VENTILATION CO., LTD.

89/9 Moo.9 Chalongkrung Road, Lam Pak Chi, Nongchok Bangkok 10530, Thailand.

Tel: 02 171 1188 Fax: 02 171 1375

www.tebven.com

sales@teb.co.th



TEB AXIAL FLOW FAN & AMCA Certification



TEB Ventilation Co., Ltd. certifies that the WAX series as model, WAX-400-x-5, WAX-450-x-5, WAX-500-x-5, WAX-560-x-5, WAX-630-x-5, WAX-710, WAX-800, WAX-900, and, WAX-1000, shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA publication 211 and comply with the requirements of the AMCA Certified Ratings Program.





COMPANY PROFILE




Since 1993, Our company was established as a joint venture company, between the shareholders from Europe and Thailand to manufacture industrial fans which has been a well recognized product.

With the technology and knowledge transfer from experienced international engineers, we have been providing high-quality products that response to the customers demand throughout the last 28 years.

Over the past decade, we have developed and emphasized on reliable production process, quality control system and continuous development activities. With an emphasis on engineering knowledge as well as new technology, we have developed a lot of experienced and capable Thai engineers having charge of

production and quality control to manage the production activities to assure that the customers would acquire the standardized products and to be of assistance for any customers' inquiry.

With our quality policy, we have adopted & certified for ISO9001:2015 and AMCA licensed of Model WBS and WFS for Centrifugal Single Inlet Fans that will guarantee our quality commitment to deliver to all the customers.

TEB Ventilation Co., Ltd. as the experienced manufacturer proudly presents  **TEB**, the quality brand of industrial fans. With our high standard production and quality control process, we assure all customers that we will offer only quality products, competitive price, reliable delivery and professional service support for the customer's highest satisfaction.



	Page
Company Profile	2
Materials and Construction	5
Introduction	
General Ventilation Design	6
Ventilation Rates for Acceptable Indoor Air Quality	7
Suggested Air Changes	8
Heat Gain From Occupants of Conditioned Spaces1	9
Heat Gain From Typical Electric Motors	10
Serie WAX 315-1000 Technical Specifications	11
Conversion Factors	48
Serie WAX 1250-1600 Technical Specifications	49
WAX Accessories & Silencers	62
WAX Guideline Weights	68

Fan Casing :

The fan casing is made of rust-proof painted mild steel sheet with double flange casing and compact designed that promoting for easy and space saving installation.

Impeller :

The impellers are made of light and durable aluminum alloy casting. The airfoil blade designed ensures the non-overloading fan characteristic, high efficiency with low noise level. The pitch angle varies from 10° to 40° in 5° steps for Impeller diameter up to 1000 mm. and from 7° to 40° in 3° steps for Impeller diameter larger than 1000 mm. Each impeller is statically and dynamically balanced at our factory.

Shaft :

Fan shafts are steel turned, ground and polished to precise tolerances. All shaft is sized for critical speed of at least 125 percent of maximum operating speed.

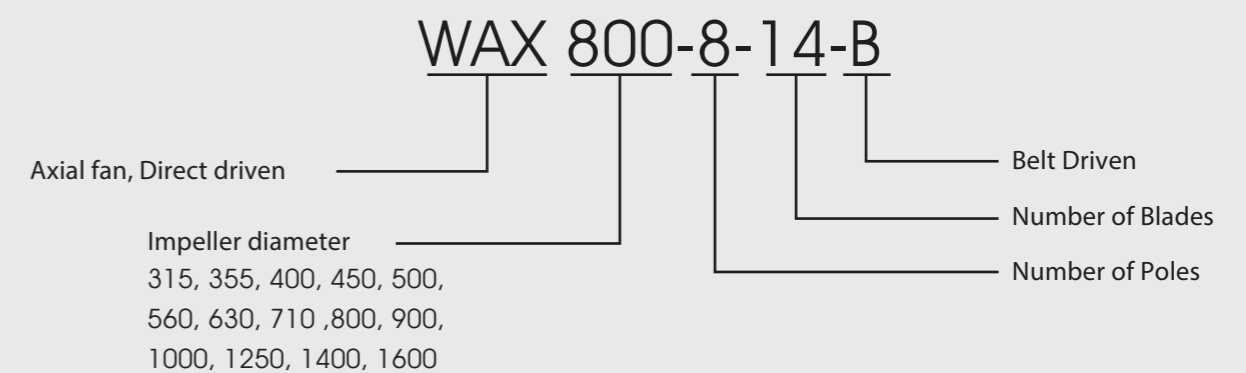
Motor :

The motor is totally enclosed class F or H, induction motor according to IEC 34. Standard motors are class F with IP55 (protect against water jets from any direction) protection class, available for 2/4/6/8 poles.

Bearing :

Bearings are heavy duty regreasable ball type in a pillow block cast iron housing select for at least 20,000 working hours and low noise while working.

Fan Model Code :





General Ventilation Design

Air Quality Method

Designing for acceptable indoor air quality requires that we address:

- Outdoor air quality
- Design of the ventilation systems
- Sources of contaminants
- Proper air filtration
- System operation and maintenance

Determine the number of people occupying the respective building spaces. Find the CFM/person requirement in Ventilation Rates for Acceptable Indoor Air Quality, page 9. Calculate the required outdoor air volume as follows:

$$\text{People} = \text{Occupancy} / 1000 \times \text{Floor Area (ft}^2\text{)}$$

$$\text{CFM} = \text{People} \times \text{Outdoor Air Requirement (CFM/person)}$$

Outdoor air quantities can be reduced to lower levels if proper particulate and gaseous air filtration equipment is utilized.

Air Change Method

Find total volume of space to be ventilated. Determine the required number of air changes per hour.

$$\text{CFM} = \text{Bldg. Volume (ft}^3\text{)} / \text{Air Change Frequency}$$

Consult local codes for air change requirement or, in absence of code, refer to "Suggested Air Changes", page 10.

Heat Removal Method

When the temperature of a space is higher than the ambient outdoor temperature, general ventilation may be utilized to provide "free cooling". Knowing the desired indoor and the design outdoor dry bulb temperatures, and the amount of heat removal required (BTU/Hr):

$$\text{CFM} = \text{Heat Removal (BTU/Hr)} / (1.10 \times \text{Temp diff})$$

Ventilation Rates for Acceptable Indoor Air Quality

Space	Outdoor Air Required (CFM/person)	Occupancy (People/1000 ft ²)
Auditoriums	15	150
Ballrooms / Discos	25	100
Bars	30	100
Beauty Shops	25	25
Classrooms	15	50
Conference Rooms	20	50
Correctional Facility Cells	20	20
Dormitory Sleeping Rooms	15	20
Dry Cleaners	30	30
Gambling Casinos	30	120
Game Rooms	25	70
Hardware Stores	15	8
Hospital Operating Rooms	30	20
Hospital Patient Rooms	25	10
Laboratories	20	30
Libraries	15	20
Medical Procedure Rooms	15	20
Office Spaces	20	7
Pharmacies	15	20
Photo Studios	15	10
Physical Therapy	15	20
Restaurant Dining Areas	20	70
Retail Facilities	15	20
Smoking Lounges	60	70
Sporting Spectator Areas	15	150
Supermarkets	15	8
Theaters	15	150

Adapted from ASHRAE Standard 62-2001 "Ventilation for Acceptable Indoor Air Quality".

Suggested Air Changes

Type of Space	Air Change Frequency (minutes)
Assembly Halls	3 – 10
Auditoriums	4 – 15
Bakeries	1 – 3
Boiler Rooms	2 – 4
Bowling Alleys	2 – 8
Dry Cleaners	1 – 5
Engine Rooms	1 – 1.5
Factories (General)	1 – 5
Forges	1 – 2
Foundries	1 – 4
Garages	2 – 10
Generating Rooms	2 – 5
Glass Plants	1 – 2
Gymnasiums	2 – 10
Heat Treat Rooms	0.5 – 1
Kitchens	1 – 3
Laundries	2 – 5
Locker Rooms	2 – 5
Machine Shops	3 – 5
Mills (Paper)	2 – 3
Mills (Textile)	5 – 15
Packing Houses	2 – 15
Recreation Rooms	2 – 8
Residences	2 – 5
Restaurants	5 – 10
Retail Stores	3 – 10
Shops (General)	3 – 10
Theaters	3 – 8
Toilets	2 – 5
Transformer Rooms	1 – 5
Turbine Rooms	2 – 6
Warehouses	2 – 10

Heat Gain From Occupants of Conditioned Spaces¹

Degree of Activity	Location	Total Heat, Btu/h		Sensible Heat, Btu/h	Latent Heat, Btu/h
		Adult Male	Adjusted, M/F ^a		
Seated at theater	Theater, matinee	390	330	225	105
Seated at theater, night	Theater, night	390	350	245	105
Seated, very light work	Offices, hotels, apartments	450	400	245	155
Moderately active office work	Offices, hotels, apartments	475	450	250	200
Standing, light work; walking	Department store; retail store	550	450	250	200
Walking, standing	Drug store, bank	550	500	250	250
Sedentary work	Restaurant ^b	490	550	275	275
Light bench work	Factory	800	750	275	475
Moderate dancing	Dance hall	900	850	305	545
Walking 3 mph; light machine work	Factory	1000	1000	375	625
Bowling ^c	Bowling alley	1500	1450	580	870
Heavy work	Factory	1500	1450	580	870
Heavy machine work; lifting	Factory	1600	1600	635	965
Athletics	Gymnasium	2000	1800	710	1090

Notes:

- Tabulated values are based on 75 °F room dry-bulb temperature. For 80 °F room dry bulb, the total heat remains the same, but the sensible heat values should be decreased by approximately 20%, and the latent heat values increased accordingly.
- All values are rounded to nearest 5 Btu/h.
 - Adjusted heat gain is based on normal percentage of men, women, and children for the application listed, with the postulate that the gain from an adult female is 85% of that for an adult male, and that the gain from a child is 75% of that for an adult male.
 - Adjusted heat gain includes 60 Btu/h for food per individual (30 Btu/h sensible and 30 Btu/h latent).
 - Figure one person per alley actually bowling, and all others as sitting (400 Btu/h) or standing or walking slowly (550 Btu/h).

Adapted from Chapter 29 ASHRAE "Fundamentals" Handbook, 2001.

INTRODUCTION

Heat Gain From Typical Electric Motors

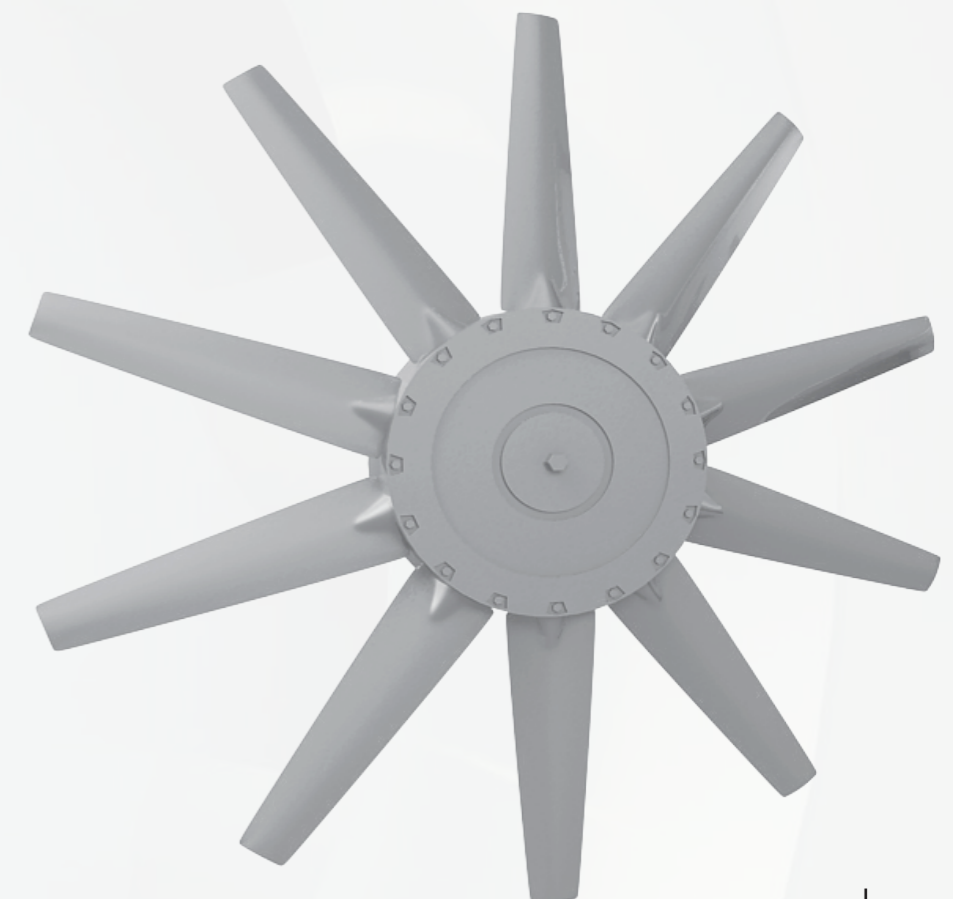
Motor Nameplate or Rated Horse - power	Motor Type	Nominal rpm	Full Load Motor Efficiency, %	Location of Motor and Driven Equipment with Respect to Conditioned Space or Airstream		
				A	B	C
				Motor in, Driven Equipment in, Btu/h	Motor out, Driven Equipment in, Btu/h	Motor in, Driven Equipment out, Btu/h
0.05	Shaded pole	1500	35	360	130	240
0.08	Shaded pole	1500	35	580	200	380
0.125	Shaded pole	1500	35	900	320	590
0.16	Shaded pole	1500	35	1,160	400	760
0.25	Split phase	1750	54	1,180	640	540
0.33	Split phase	1750	56	1,500	840	660
0.50	Split phase	1750	60	2,120	1,270	850
0.75	3-phase	1750	72	2,650	1,900	740
1	3-phase	1750	75	3,390	2,550	850
1.5	3-phase	1750	77	4,960	3,820	1,140
2	3-phase	1750	79	6,440	5,090	1,350
3	3-phase	1750	81	9,430	7,640	1,790
5	3-phase	1750	82	15,500	12,700	2,790
7.5	3-phase	1750	84	22,700	19,100	3,640
10	3-phase	1750	85	29,900	24,500	4,490
15	3-phase	1750	86	44,400	38,200	6,210
20	3-phase	1750	87	58,500	50,900	7,610
25	3-phase	1750	88	72,300	63,600	8,680
30	3-phase	1750	89	85,700	76,300	9,440
40	3-phase	1750	89	114,000	102,000	12,600
50	3-phase	1750	89	143,000	127,000	15,700
60	3-phase	1750	89	172,000	153,000	18,900
75	3-phase	1750	90	212,000	191,000	21,200
100	3-phase	1750	90	283,000	255,000	28,300
125	3-phase	1750	90	353,000	318,000	35,300
150	3-phase	1750	91	420,000	382,000	37,800
200	3-phase	1750	91	569,000	509,000	50,300
250	3-phase	1750	91	699,000	636,000	62,900

Adapted from Chapter 29 ASHRAE "Fundamentals" Handbook, 2001.



AXIAL FAN Direct Driven

WAX 315-1000



WAX 315

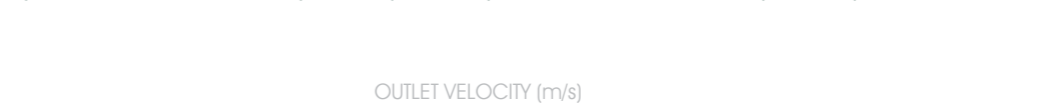
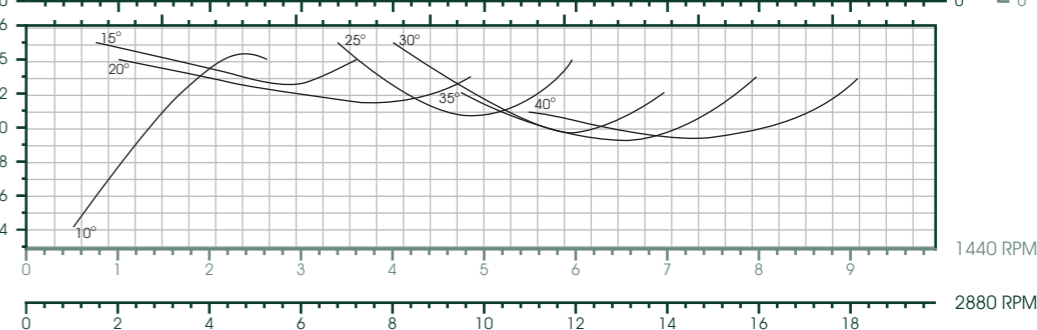
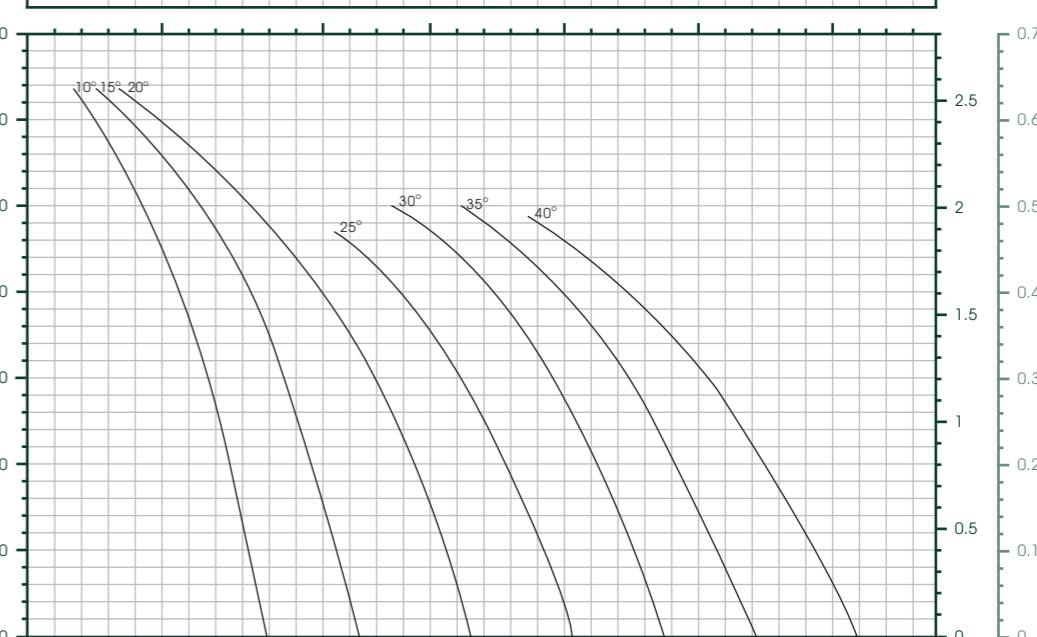
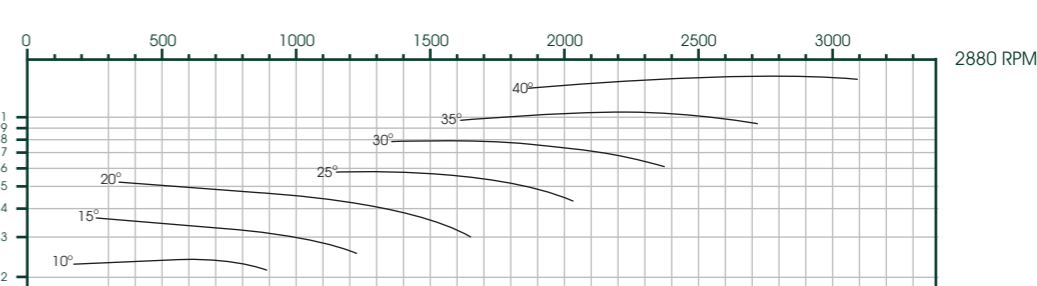
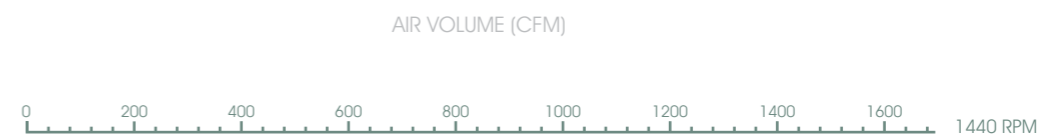
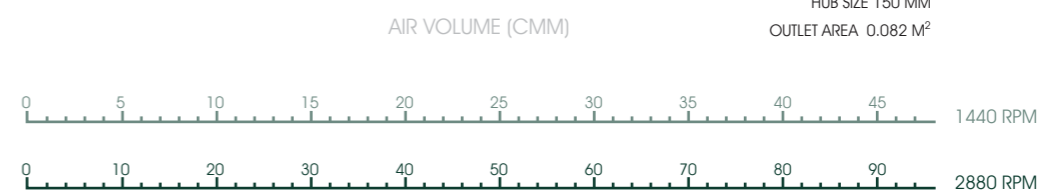
Axial Fan, Direct Driven



Wheel Diameter 315 mm.
Outlet Area 0.082 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

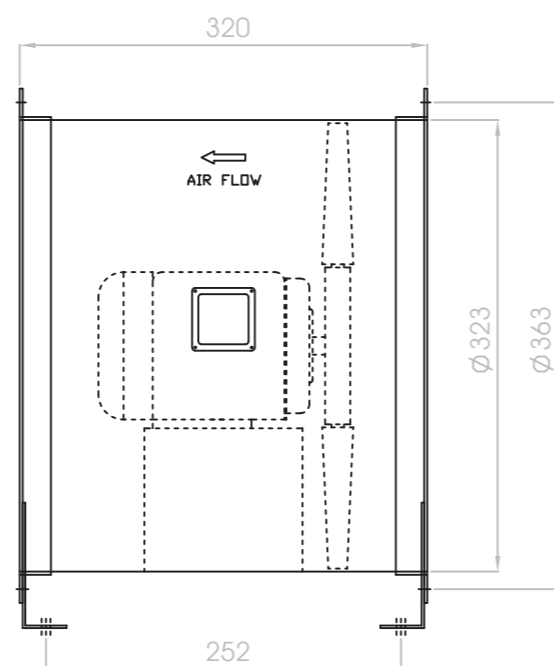
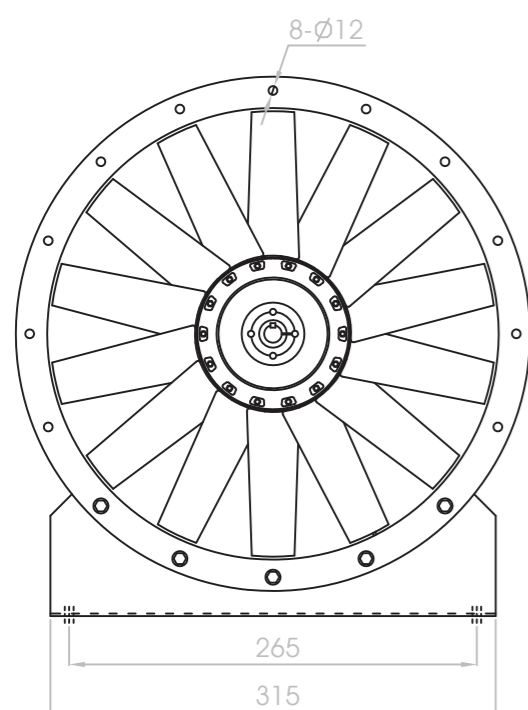
WAX 315-2-10 2880 RPM | WAX 315-4-10 1440 RPM

WHEEL DIAMETER 315 MM
 HUB SIZE 150 MM
 OUTLET AREA 0.082 M²



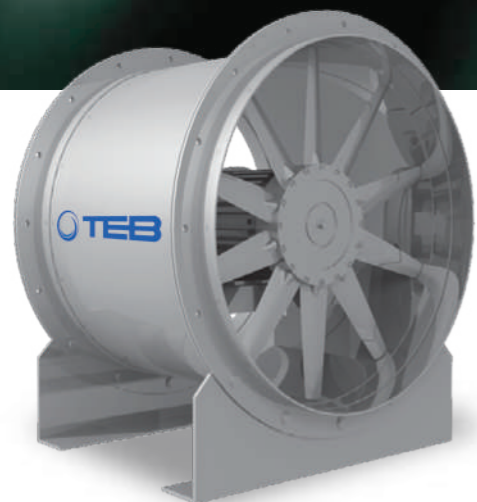
WAX 315-10 is not licensed to bear the AMCA Certified Ratings Seal.

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 315-2-10	315	2880	10°-40°	0.37-0.75
WAX 315-4-10	315	1440	10°-40°	0.37



WAX 355

Axial Fan, Direct Driven

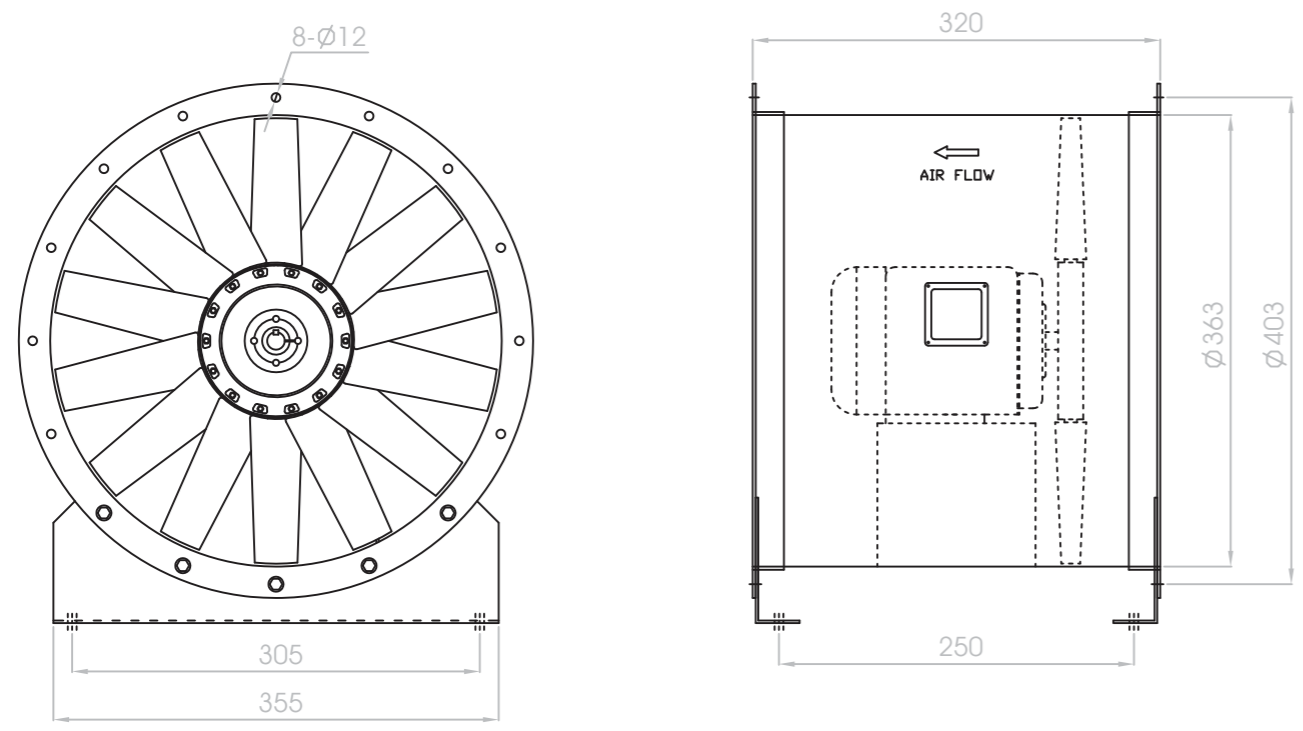
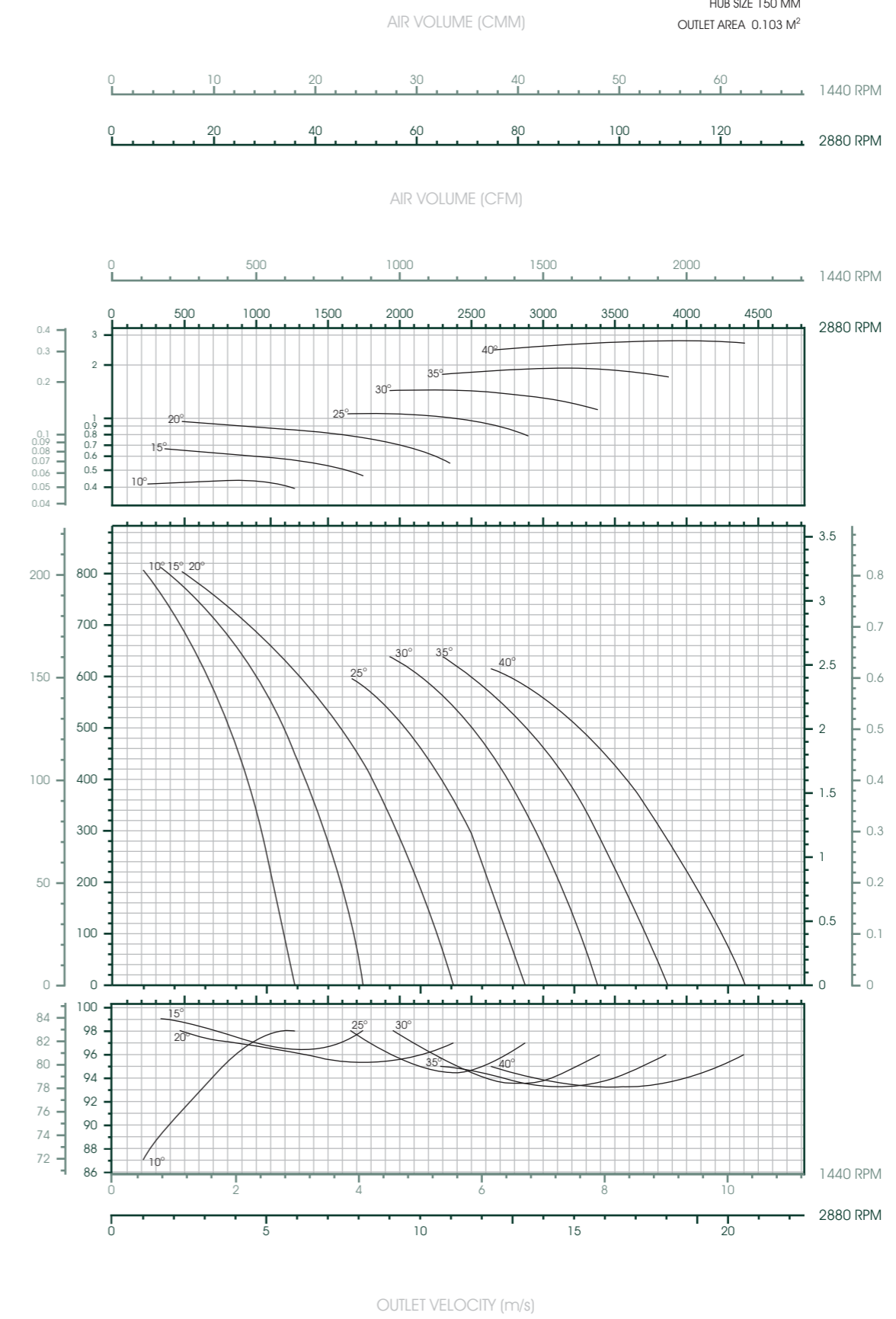


Wheel Diameter 355 mm.
Outlet Area 0.103 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

WAX 355-2-10 2880 RPM | WAX 355-4-10 1440 RPM

WHEEL DIAMETER 355 MM
HUB SIZE 150 MM
OUTLET AREA 0.103 M²

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 355-2-10	355	2880	10°-40°	0.37-1.5
WAX 355-4-10	355	1440	10°-40°	0.37



WAX 355-10 is not licensed to bear the AMCA Certified Ratings Seal.

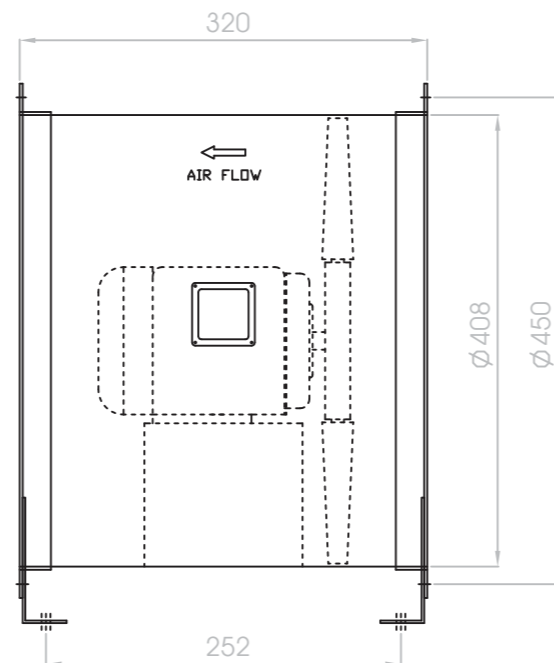
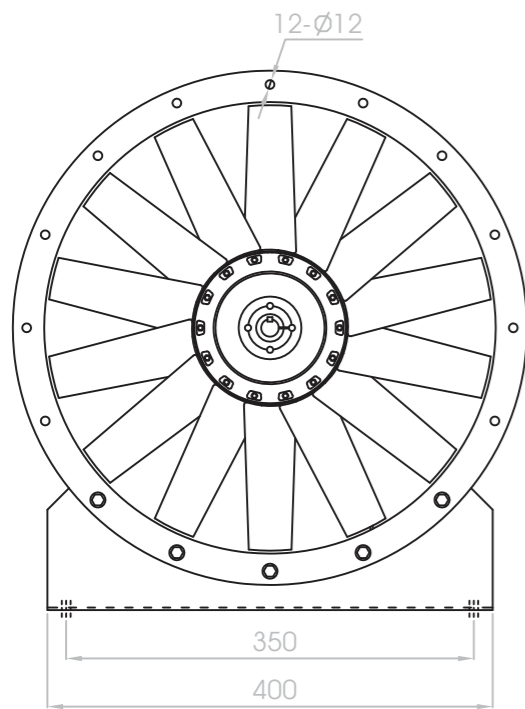
WAX 400

Axial Fan, Direct Driven



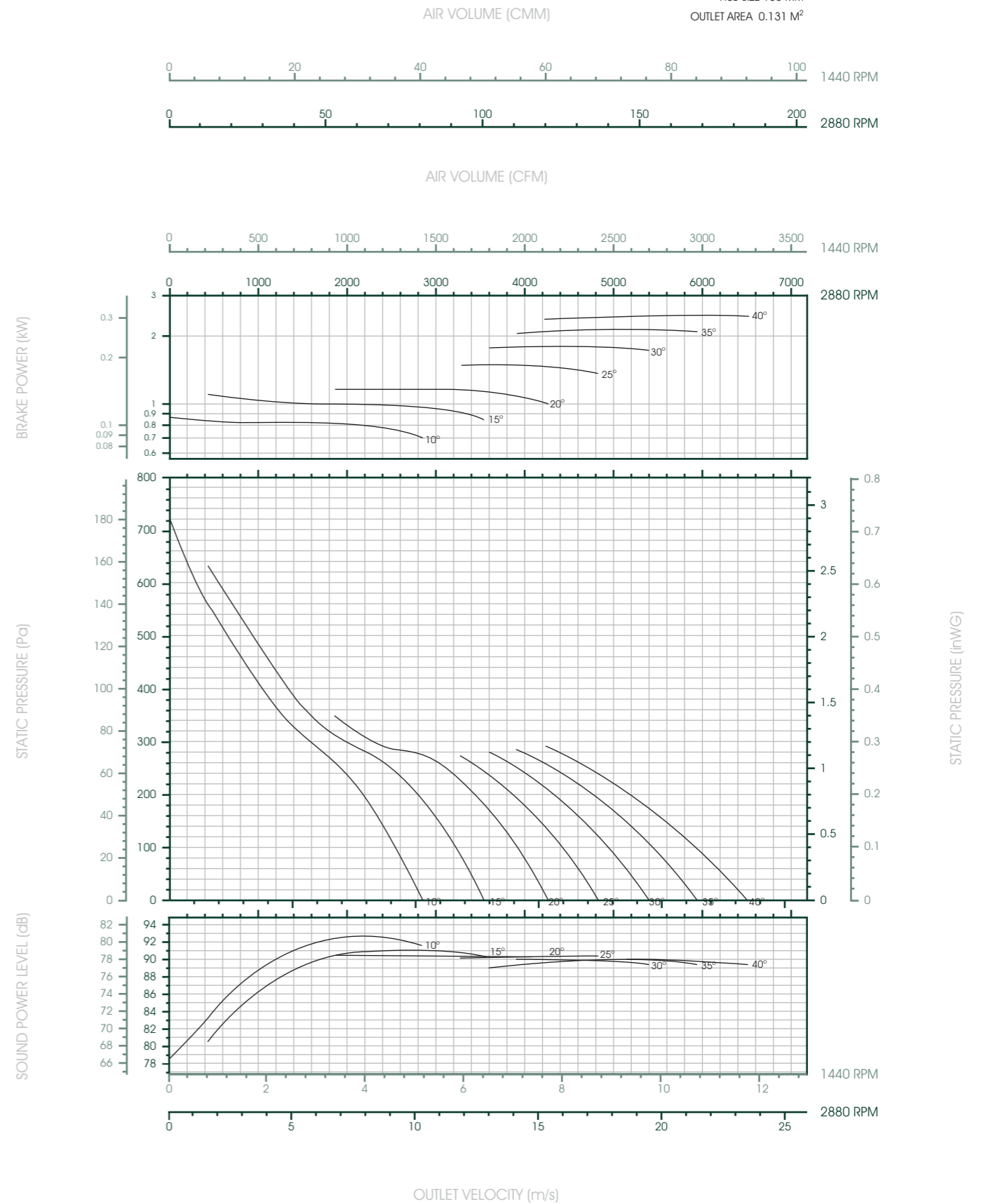
Wheel Diameter 400 mm.
Outlet Area 0.131 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 400-2-5	400	2880	10°-40°	0.75-2.2
WAX 400-4-5	400	1440	10°-40°	0.37



WAX 400-2-5 2880 RPM | WAX 400-4-5 1440 RPM

WHEEL DIAMETER 400 MM
HUB SIZE 150 MM
OUTLET AREA 0.131 M²



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

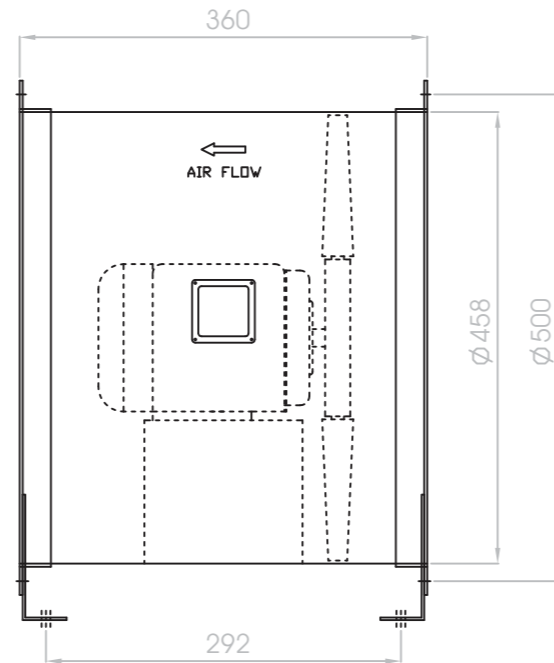
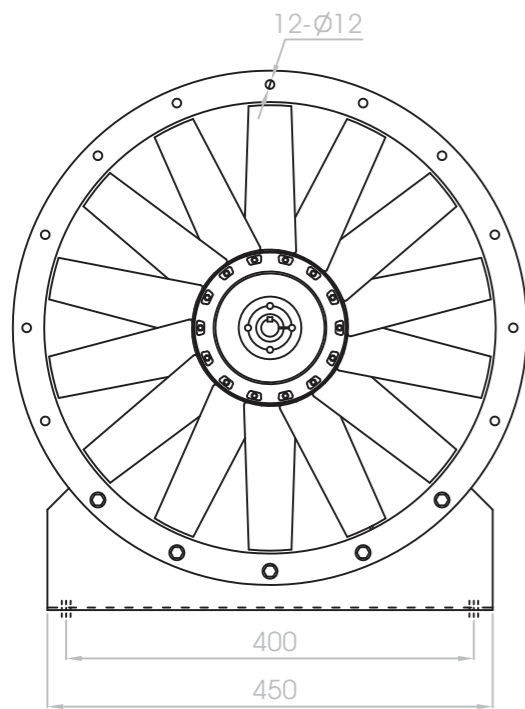
WAX 450

Axial Fan, Direct Driven



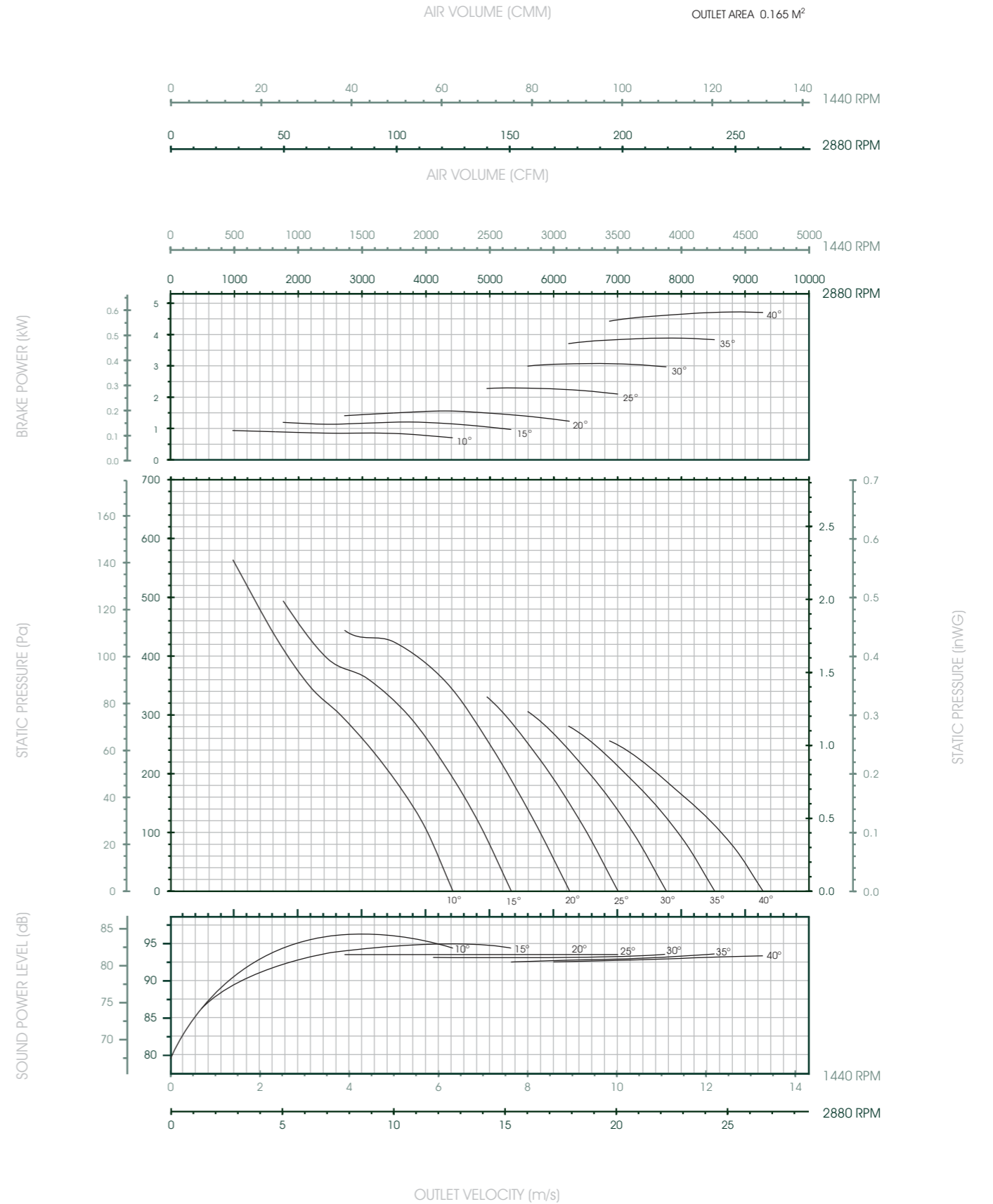
Wheel Diameter 450 mm.
Outlet Area 0.165 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 450-2-5	450	2880	10°-40°	0.75-4.0
WAX 450-4-5	450	1440	10°-40°	0.37-0.75



WAX 450-2-5 2880 RPM | WAX 450-4-5 1440 RPM

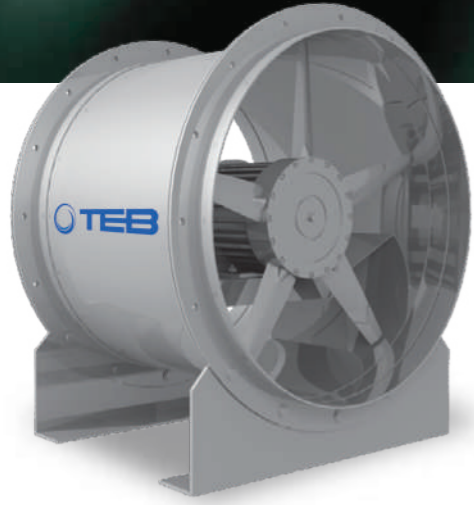
WHEEL DIAMETER 450 MM
 HUB SIZE 150 MM
 OUTLET AREA 0.165 M²



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

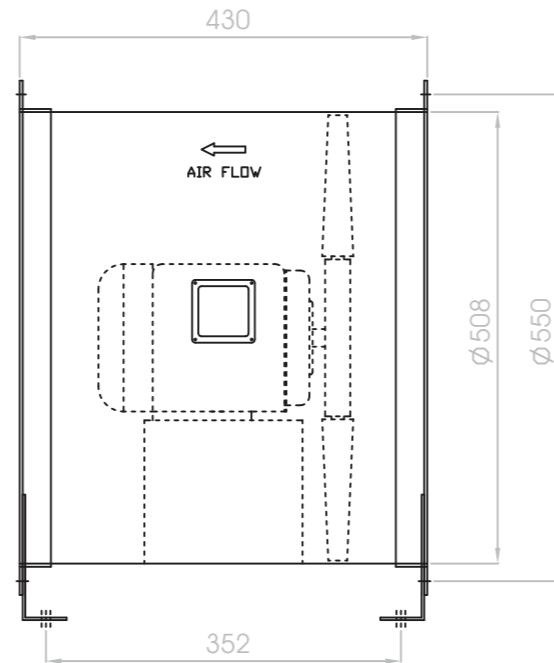
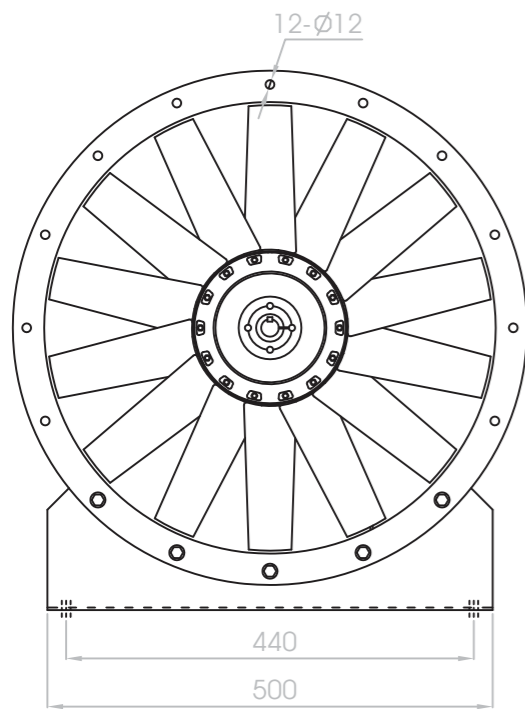
WAX 500

Axial Fan, Direct Driven

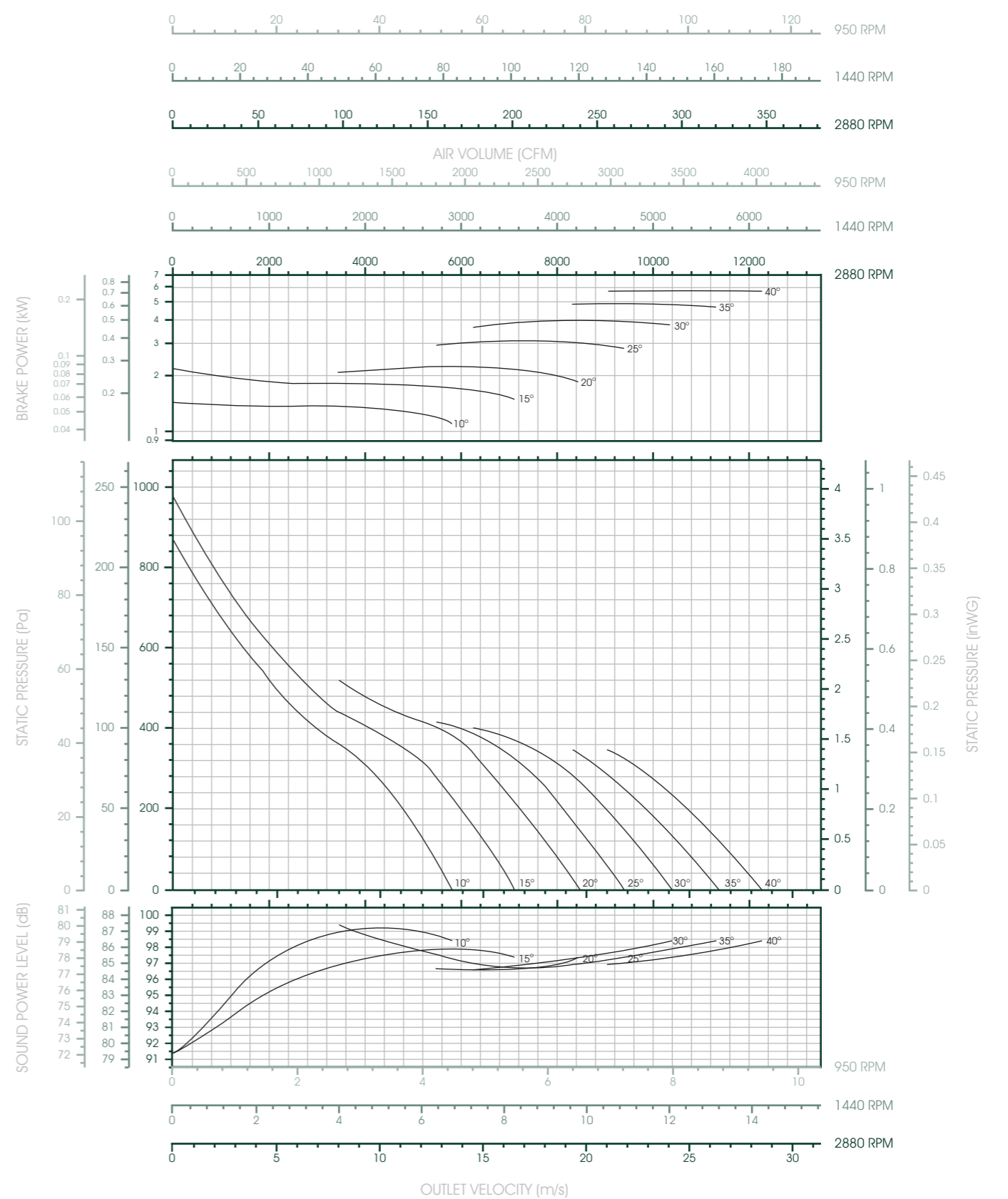


Wheel Diameter 500 mm.
Outlet Area 0.203 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 500-2-5	500	2880	10°-40°	1.5-4.0
WAX 500-4-5	500	1440	10°-40°	0.37-0.75
WAX 500-6-5	500	950	10°-40°	0.37-0.75



WAX 500-2-5 2880 RPM | WAX 500-4-5 1440 RPM | WAX 500-6-5 950 RPM
 WHEEL DIAMETER 500 MM
 HUB SIZE 150 MM
 OUTLET AREA 0.203 M²



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

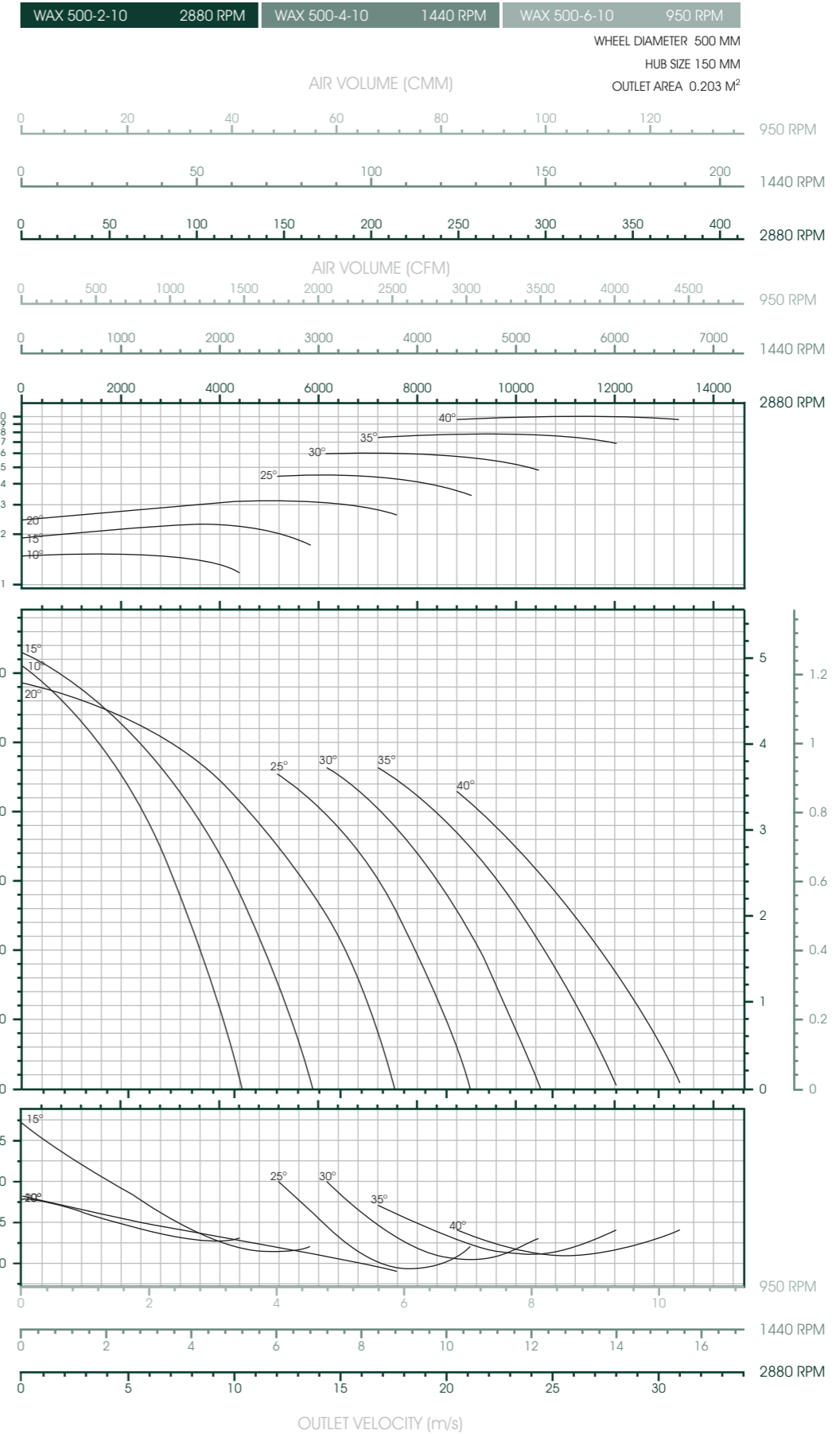
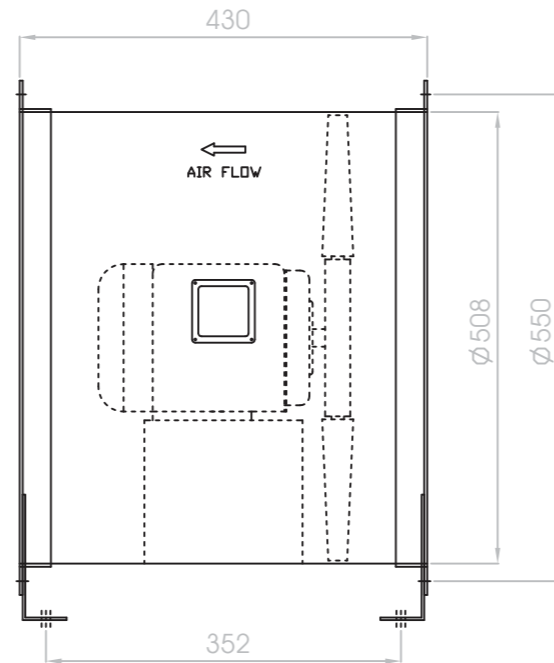
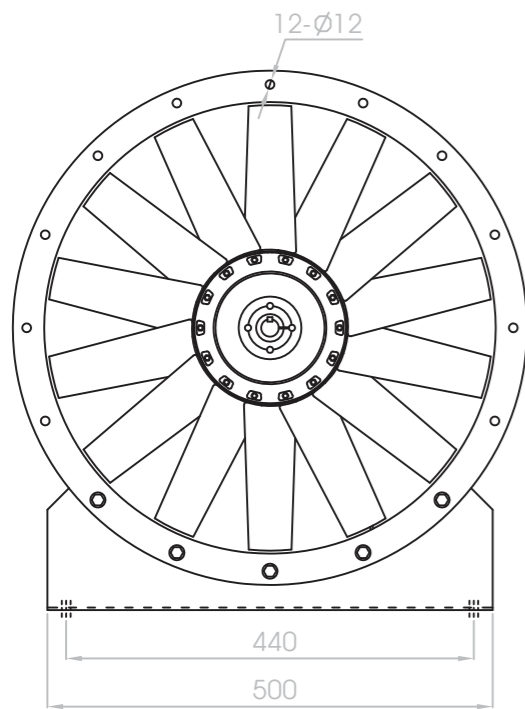
WAX 500

Axial Fan, Direct Driven



Wheel Diameter 500 mm.
Outlet Area 0.203 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 500-2-10	500	2880	10°-40°	1.5-4.0
WAX 500-4-10	500	1440	10°-40°	0.37-0.75
WAX 500-6-10	500	950	10°-40°	0.37-0.75



WAX 500-10 is not licensed to bear the AMCA Certified Ratings Seal.

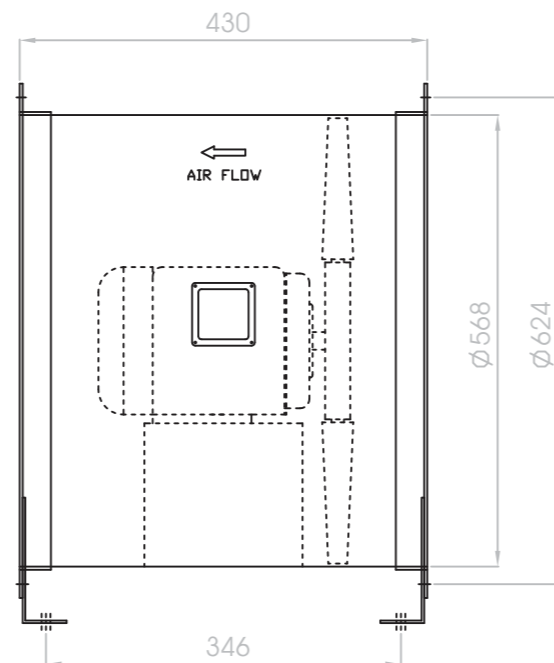
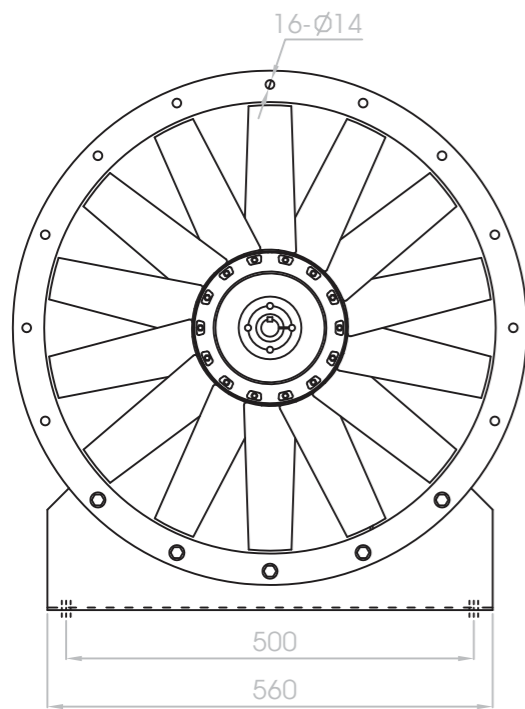
WAX 560

Axial Fan, Direct Driven

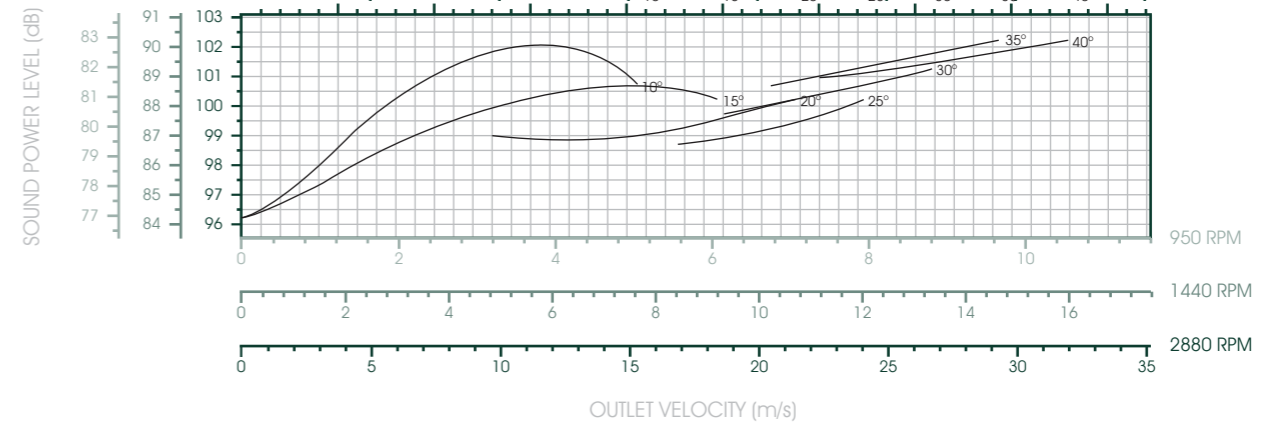
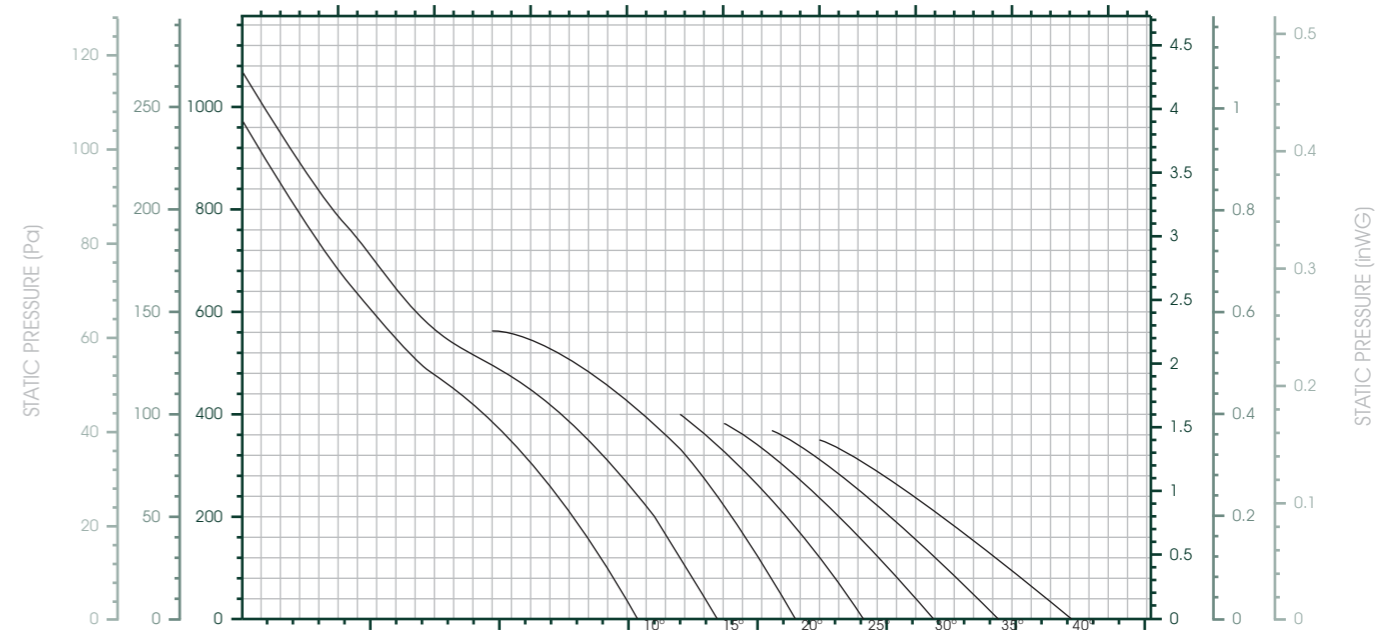
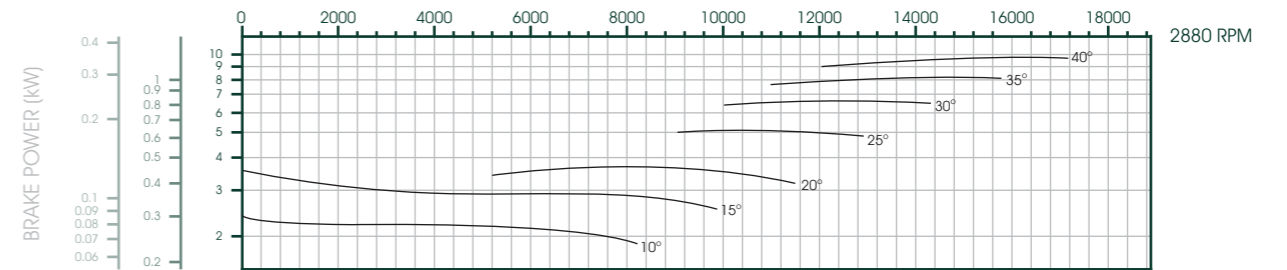
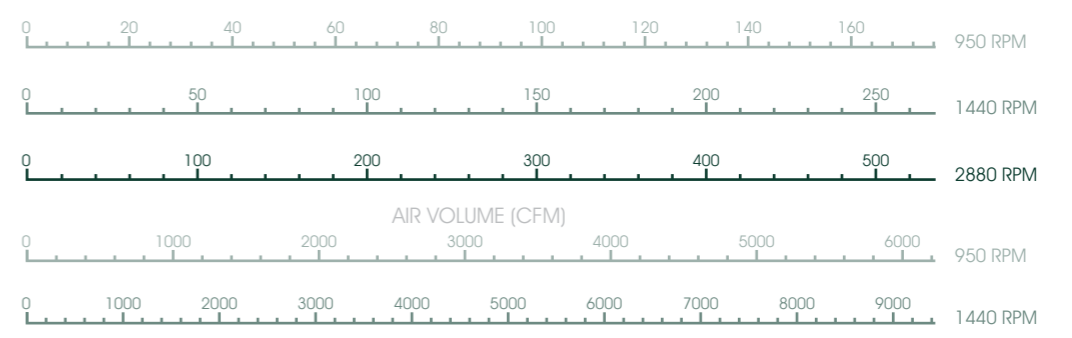


Wheel Diameter 560 mm.
Outlet Area 0.253 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 560-2-5	560	2880	10°-40°	1.5-4.0
WAX 560-4-5	560	1440	10°-40°	0.75-1.5
WAX 560-6-5	560	950	10°-40°	0.37-0.75



WAX 560-2-5 2880 RPM | WAX 560-4-5 1440 RPM | WAX 560-6-5 950 RPM
 WHEEL DIAMETER 560 MM
 HUB SIZE 150 MM
 OUTLET AREA 0.253 M²



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

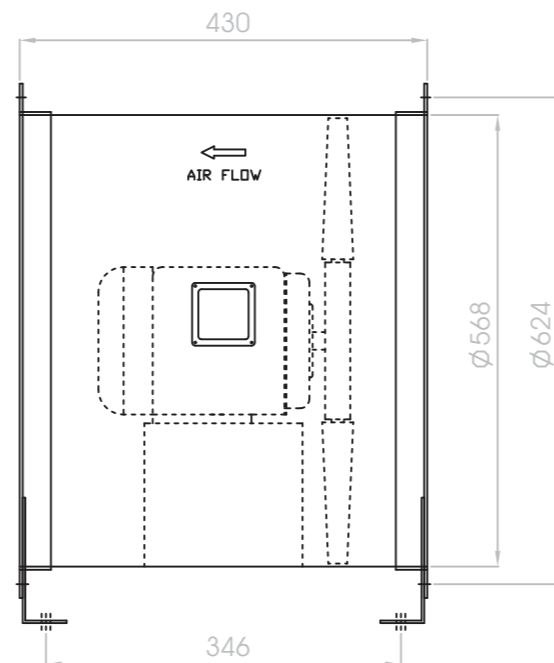
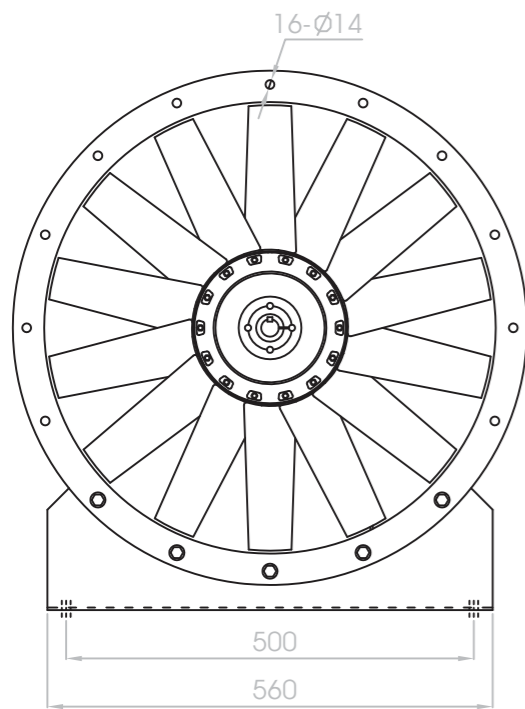
WAX 560

Axial Fan, Direct Driven



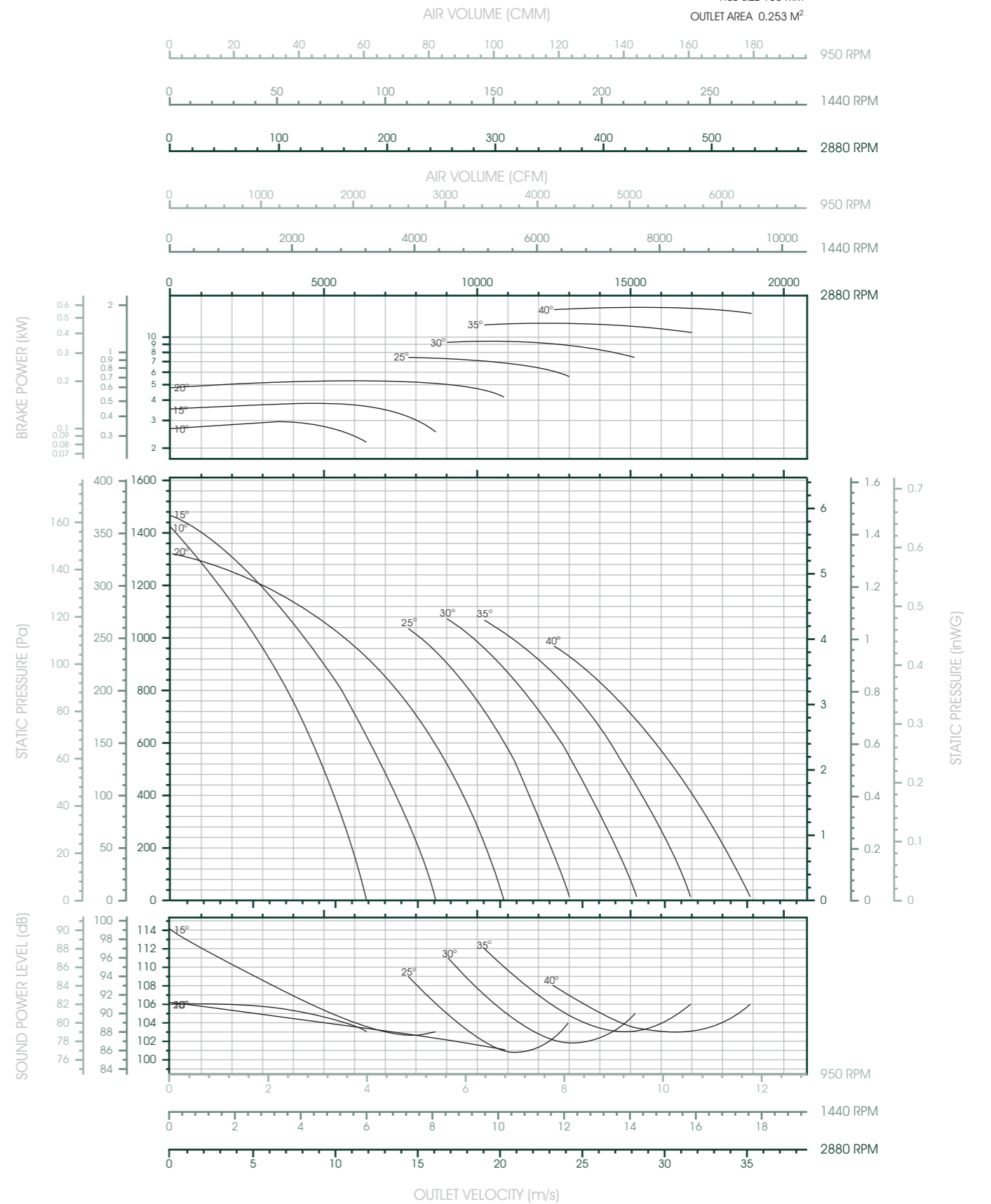
Wheel Diameter 560 mm.
Outlet Area 0.253 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 560-2-10	560	2880	10°-40°	1.5-4.0
WAX 560-4-10	560	1440	10°-40°	0.75-1.5
WAX 560-6-10	560	950	10°-40°	0.37-0.75



WAX 560-2-10 2880 RPM | WAX 560-4-10 1440 RPM | WAX 560-6-10 950 RPM

WHEEL DIAMETER 560 MM
HUB SIZE 150 MM
OUTLET AREA 0.253 M²



WAX 560-10 is not licensed to bear the AMCA Certified Ratings Seal.

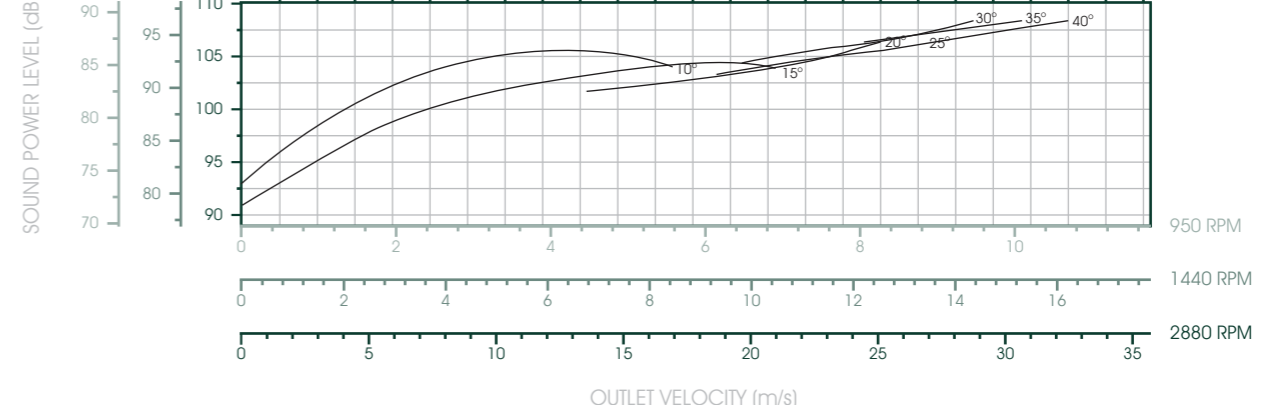
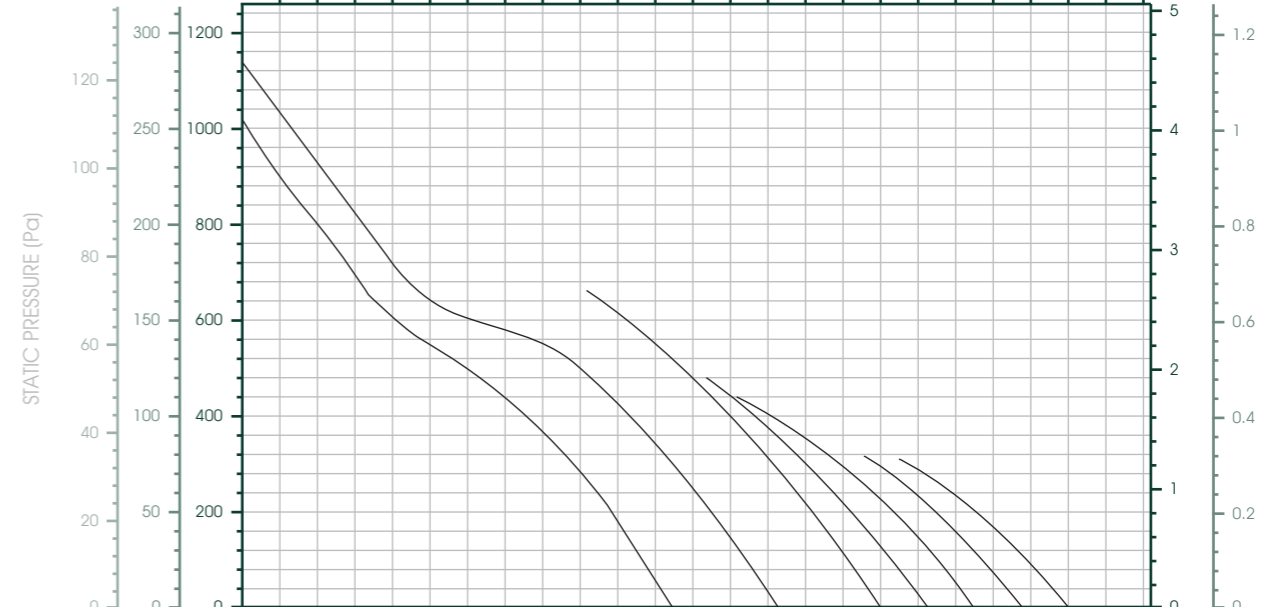
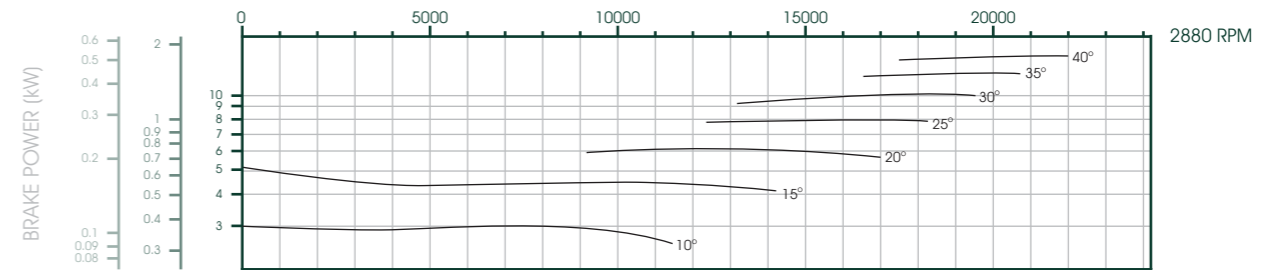
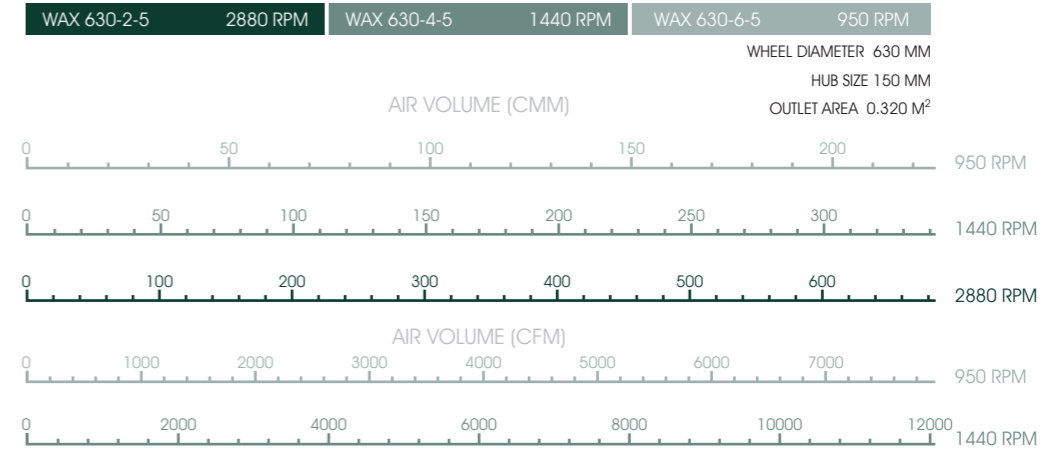
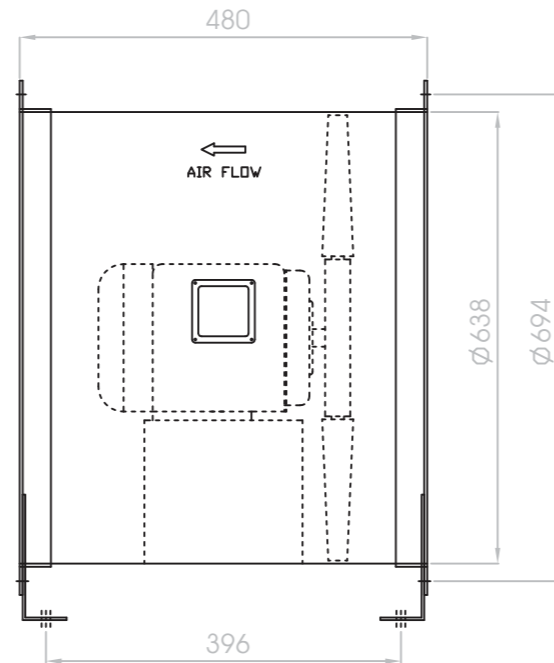
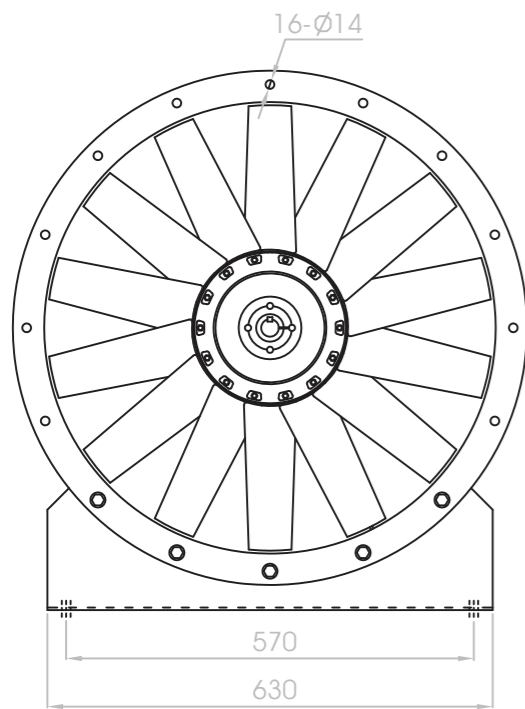
WAX 630

Axial Fan, Direct Driven



Wheel Diameter 630 mm.
Outlet Area 0.320 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 630-2-5	630	2880	10°-40°	2.2-4.0
WAX 630-4-5	630	1440	10°-40°	0.75-2.2
WAX 630-6-5	630	950	10°-40°	0.37-1.5



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

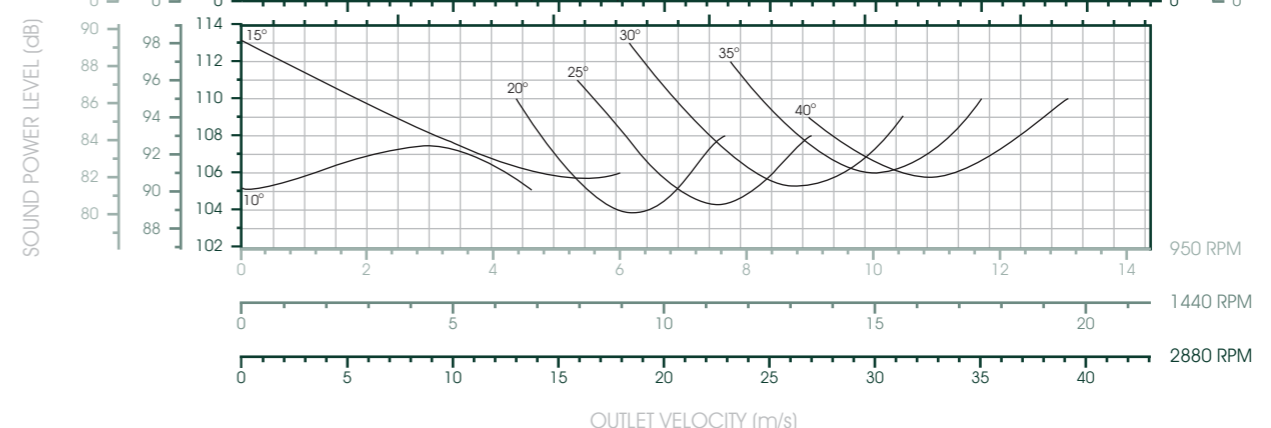
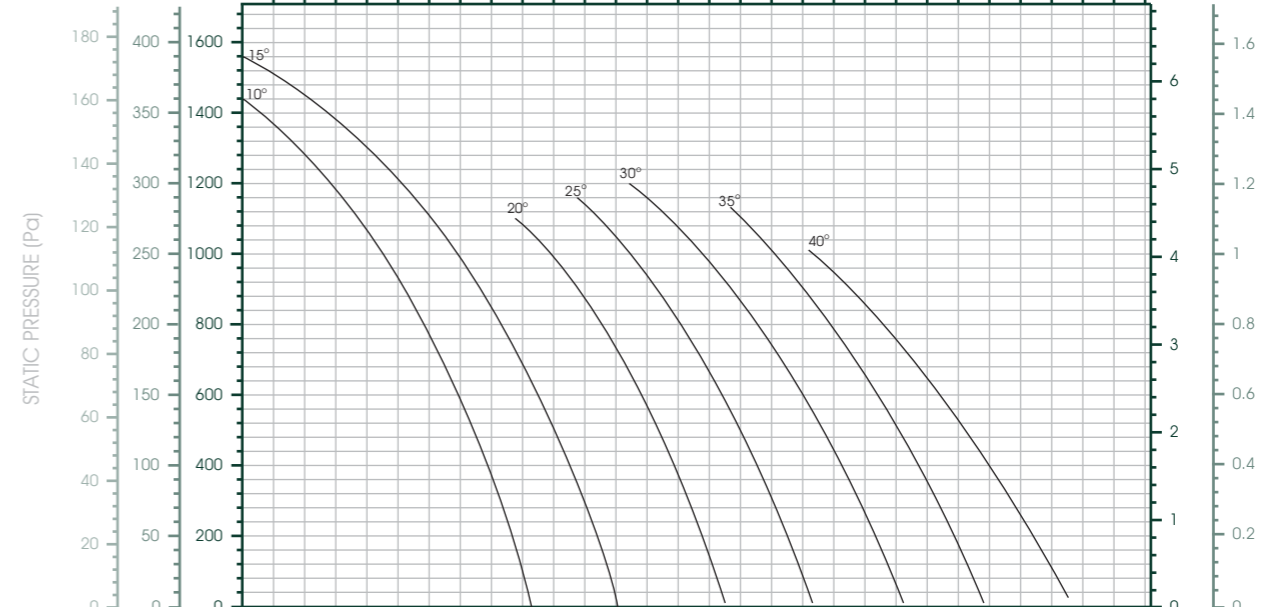
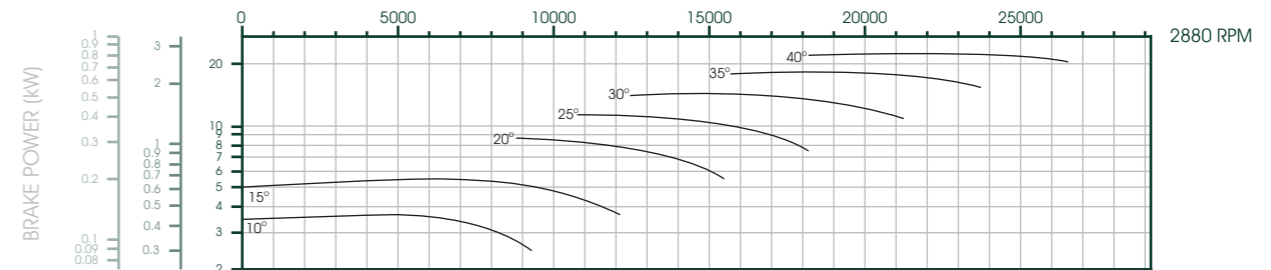
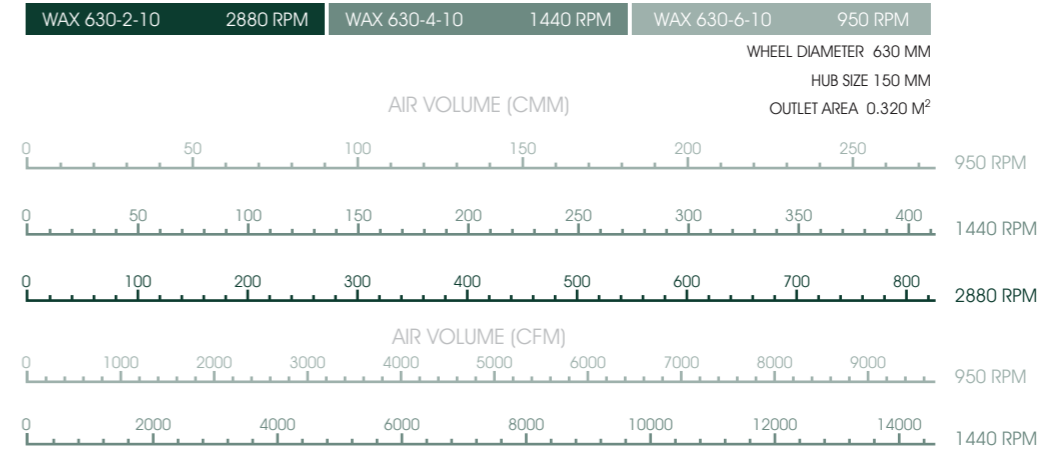
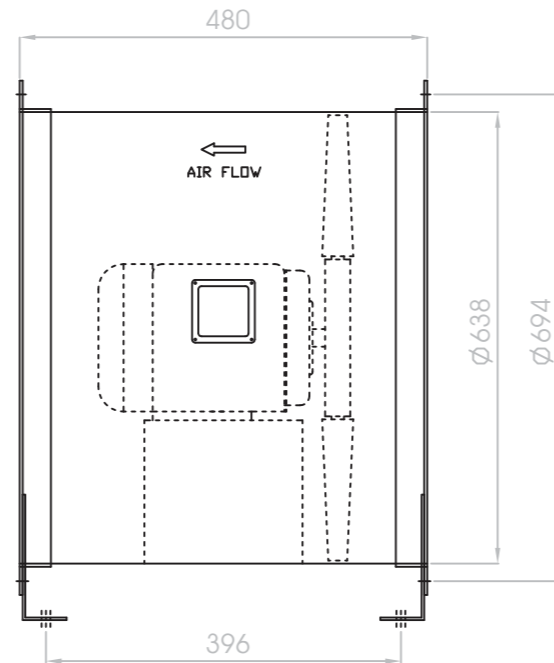
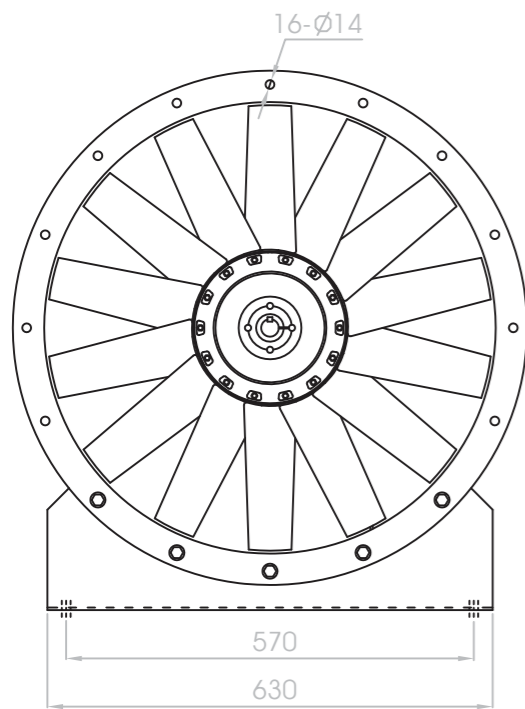
WAX 630

Axial Fan, Direct Driven



Wheel Diameter 630 mm.
Outlet Area 0.320 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 630-2-10	630	2880	10°-40°	2.2-4.0
WAX 630-4-10	630	1440	10°-40°	0.75-2.2
WAX 630-6-10	630	950	10°-40°	0.37-1.5



WAX 630-10 is not licensed to bear the AMCA Certified Ratings Seal.

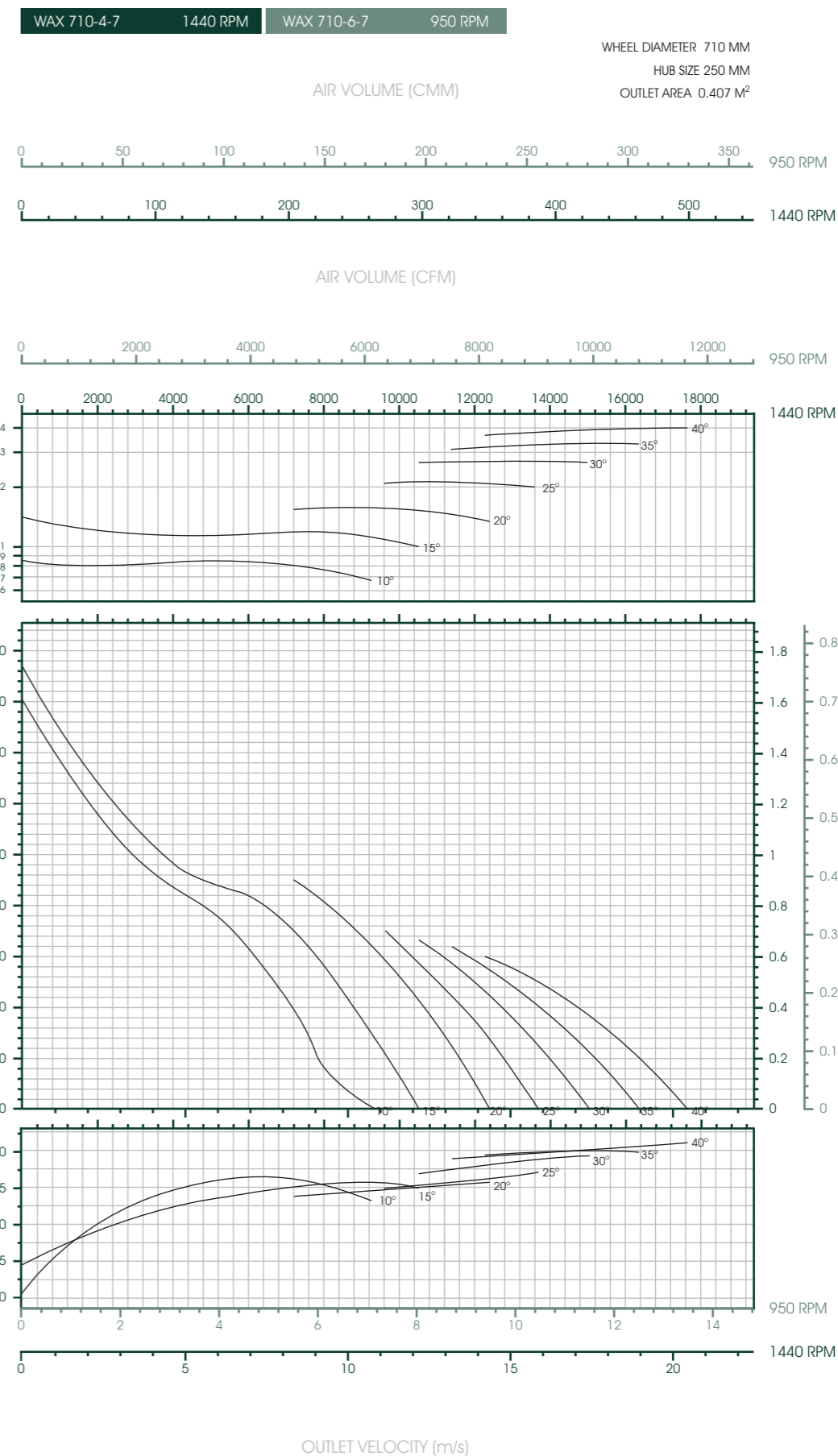
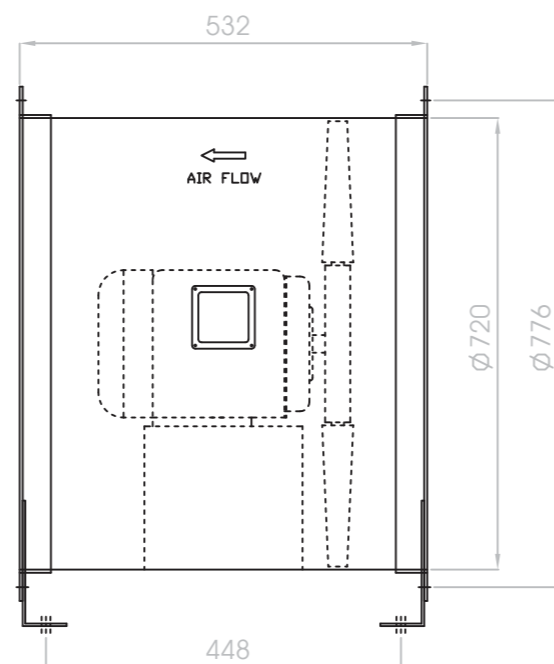
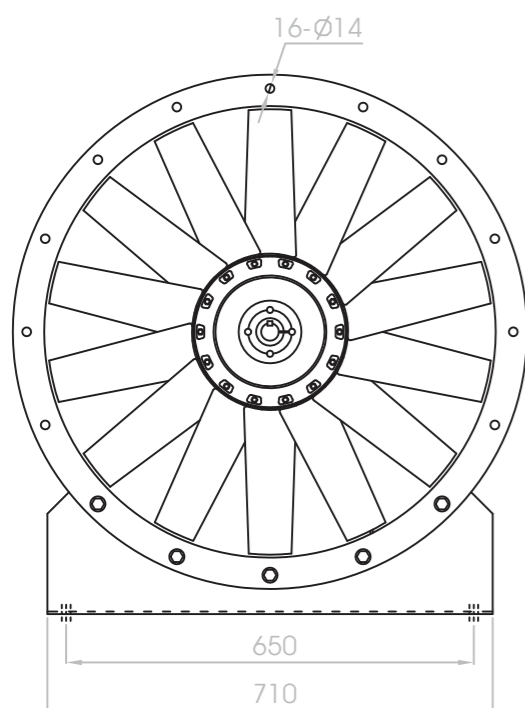
WAX 710

Axial Fan, Direct Driven



Wheel Diameter 710 mm.
Outlet Area 0.407 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 710-4-7	710	1440	10°-40°	0.75-4.0
WAX 710-6-7	710	950	10°-40°	0.75-2.2



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

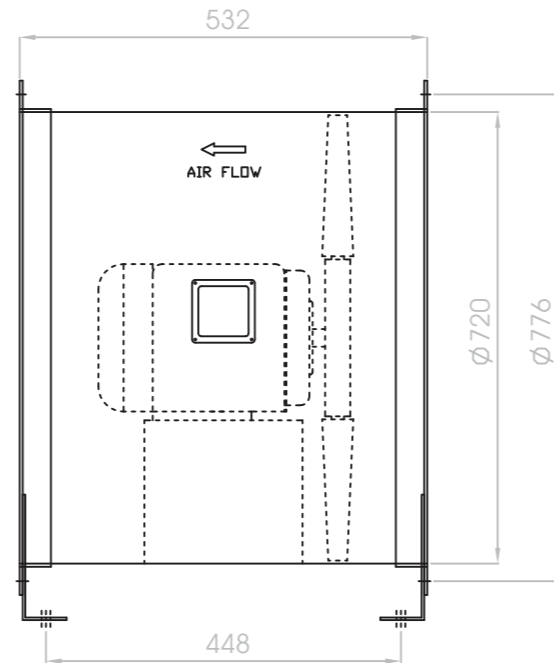
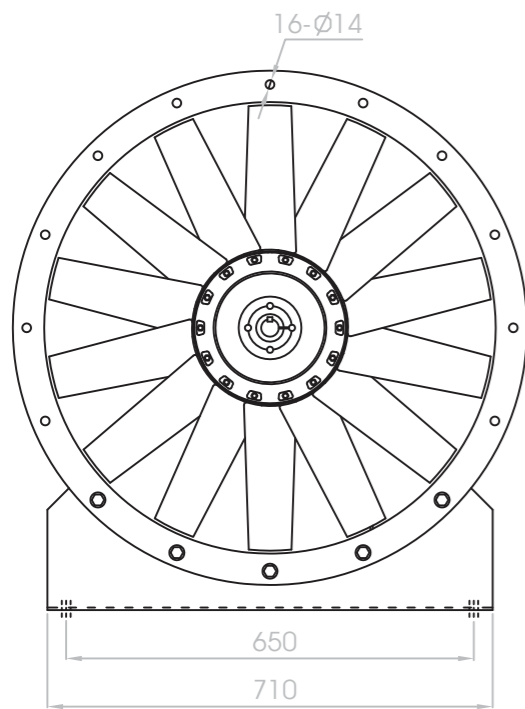
WAX 710

Axial Fan, Direct Driven



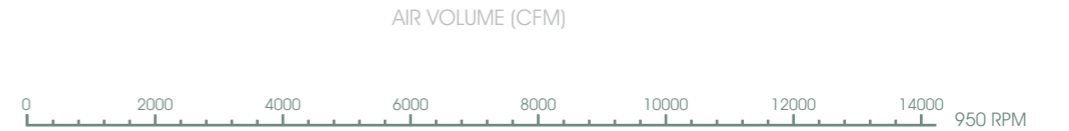
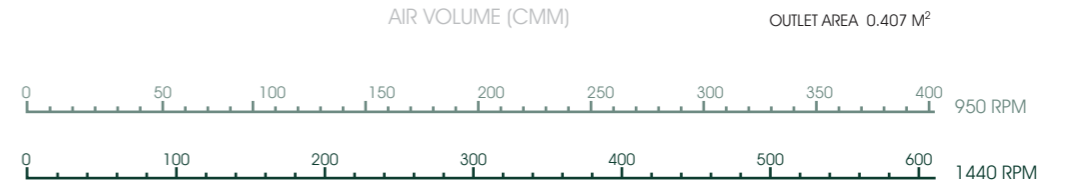
Wheel Diameter 710 mm.
Outlet Area 0.407 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 710-4-14	710	1440	10°-40°	0.75-4.0
WAX 710-6-14	710	950	10°-40°	0.75-2.2

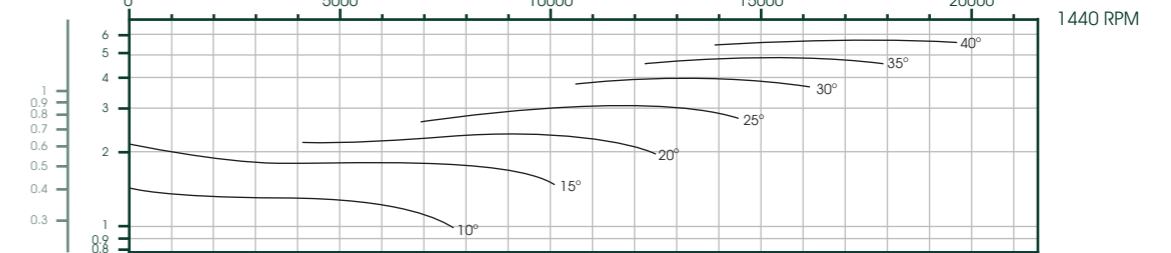


WAX 710-4-14 1440 RPM WAX 710-6-14 950 RPM

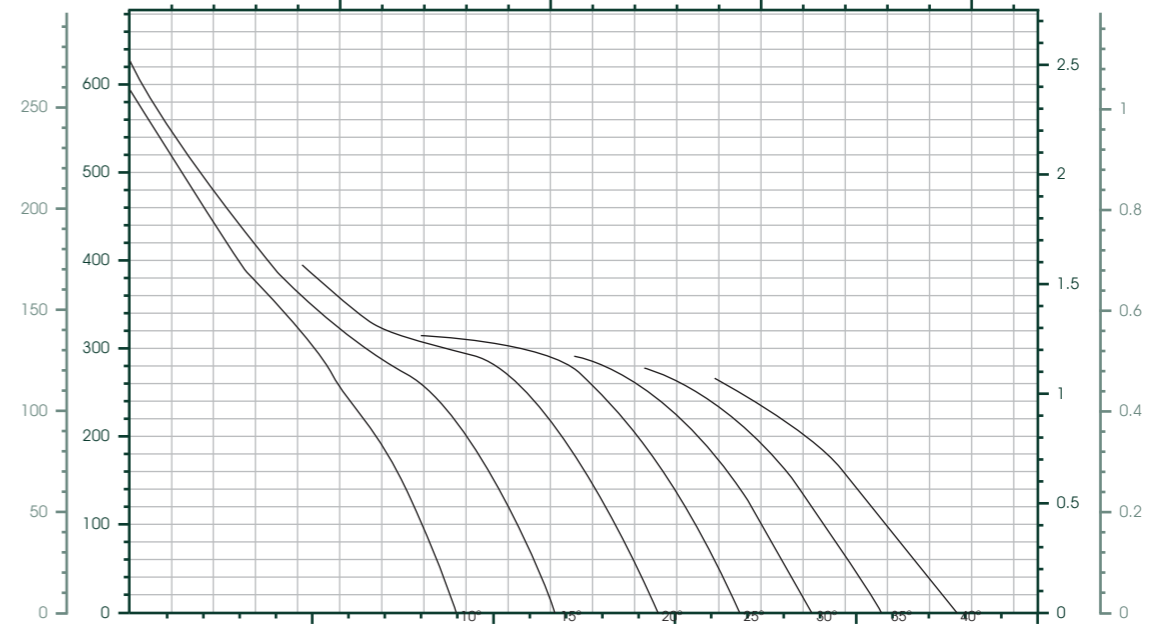
WHEEL DIAMETER 710 MM
HUB SIZE 250 MM
OUTLET AREA 0.407 M²



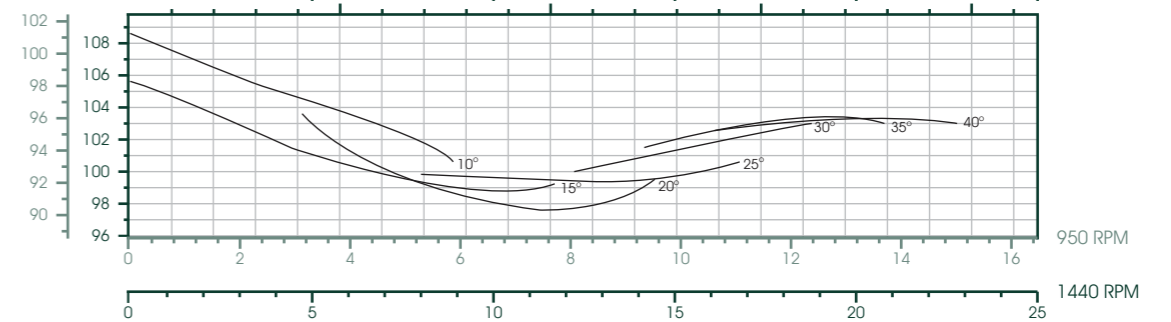
BRAKE POWER (kW)



STATIC PRESSURE (Pa)



SOUND POWER LEVEL (dB)



STATIC PRESSURE (inWG)

1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

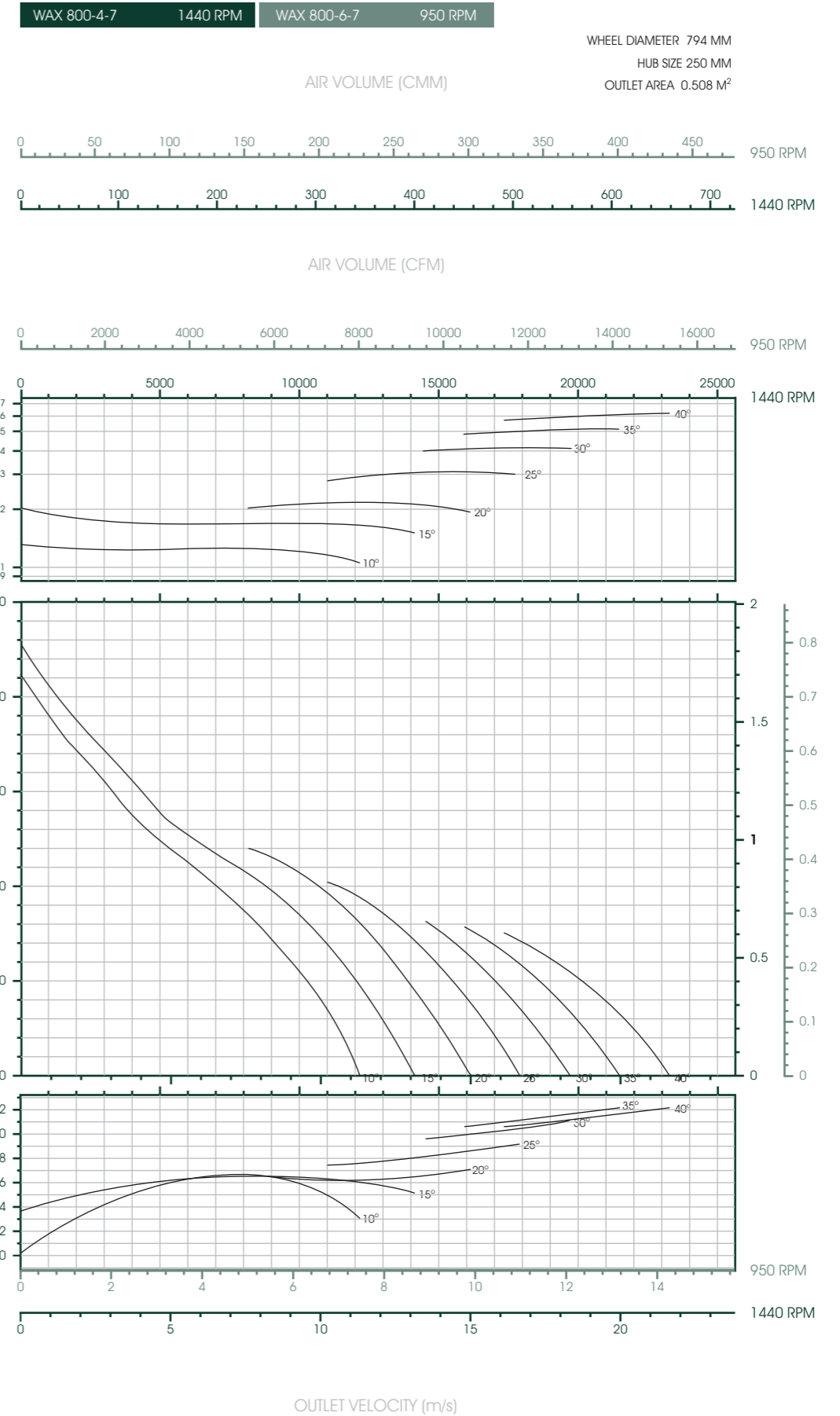
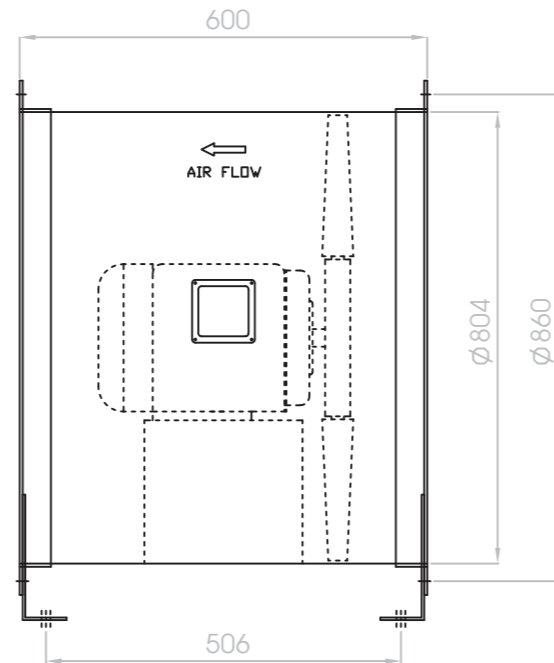
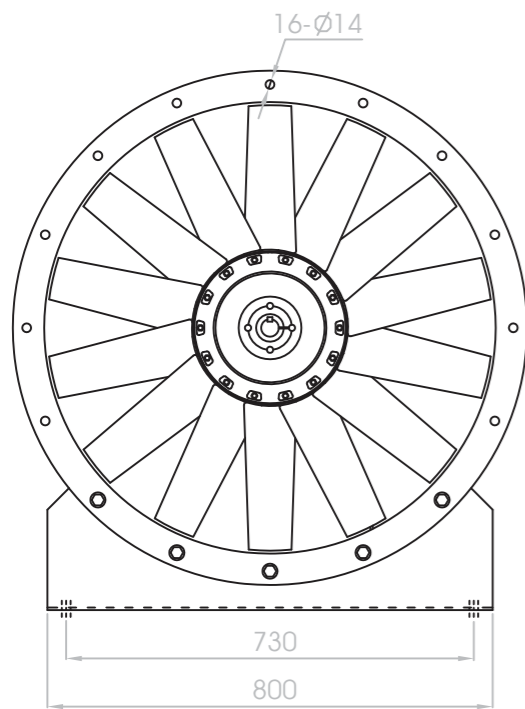
WAX 800

Axial Fan, Direct Driven



Wheel Diameter 794 mm.
Outlet Area 0.508 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 800-4-7	794	1440	10°-40°	1.5-5.5
WAX 800-6-7	794	950	10°-40°	0.75-4.0



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

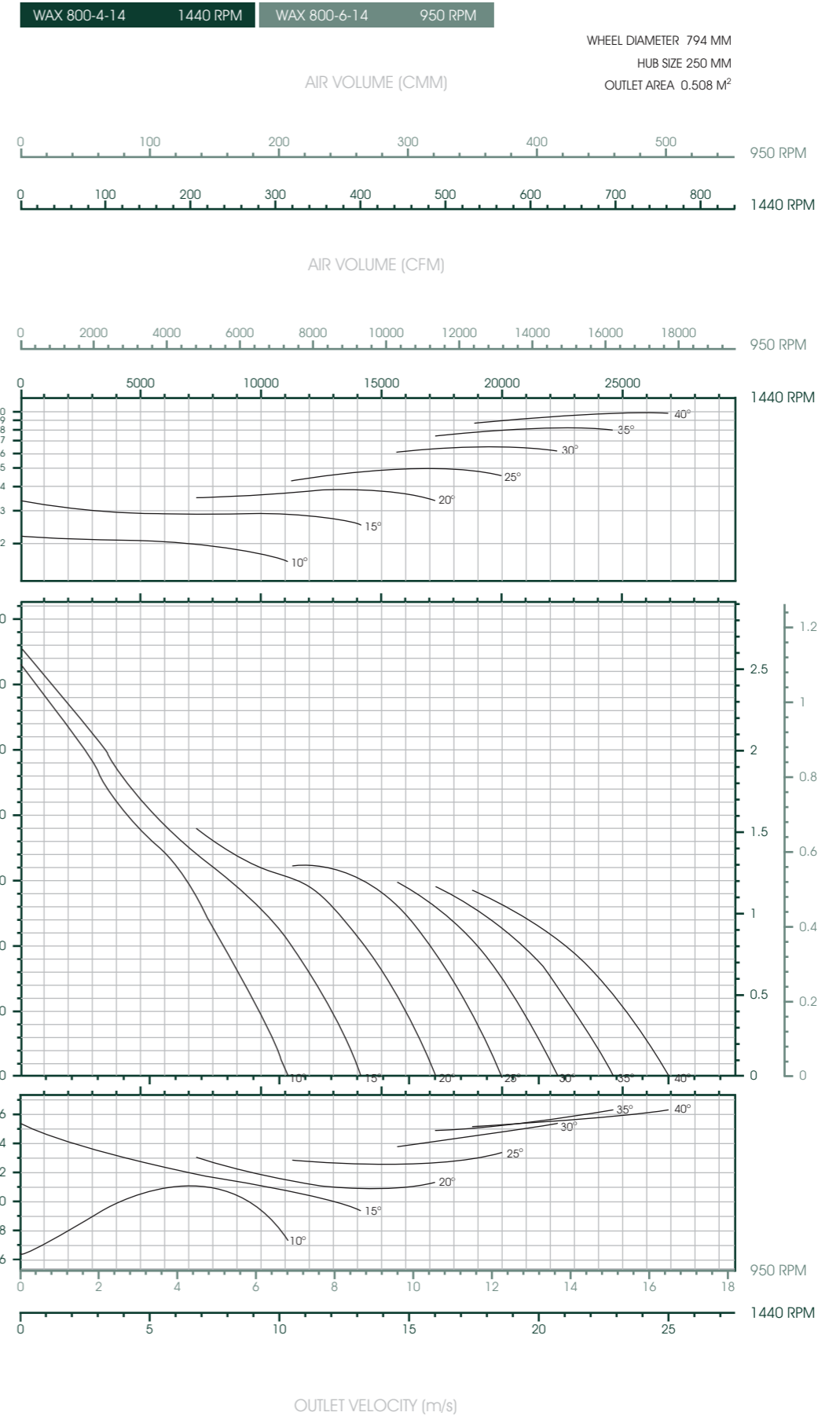
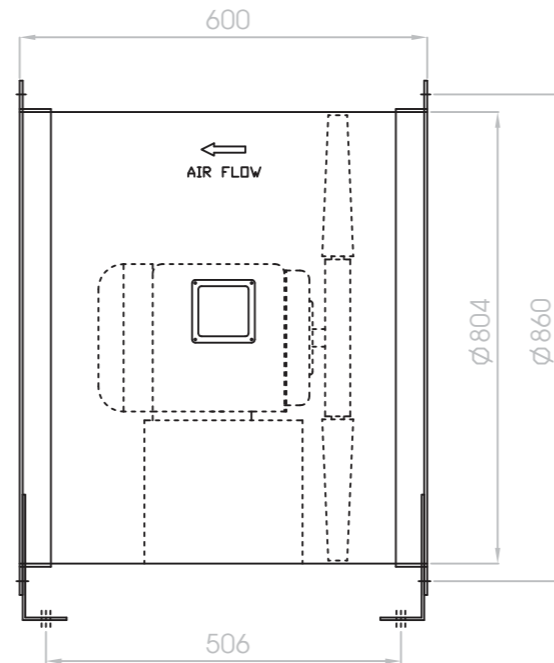
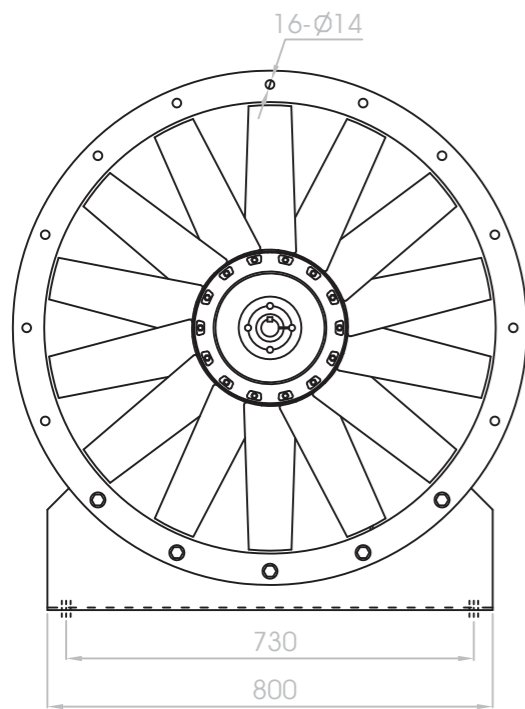
WAX 800

Axial Fan, Direct Driven



Wheel Diameter 794 mm.
Outlet Area 0.508 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 800-4-14	794	1440	10°-40°	1.5-5.5
WAX 800-6-14	794	950	10°-40°	0.75-4.0



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

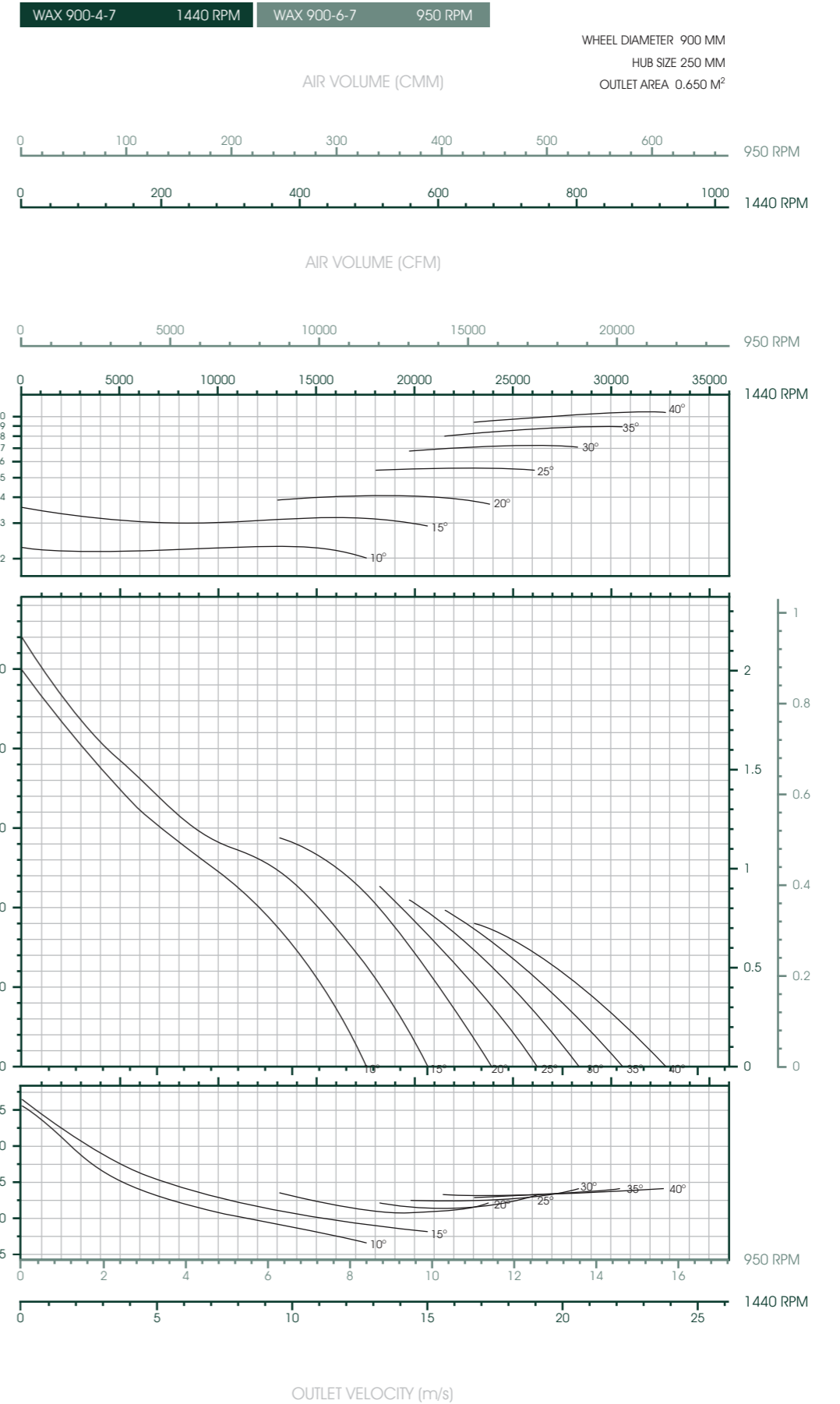
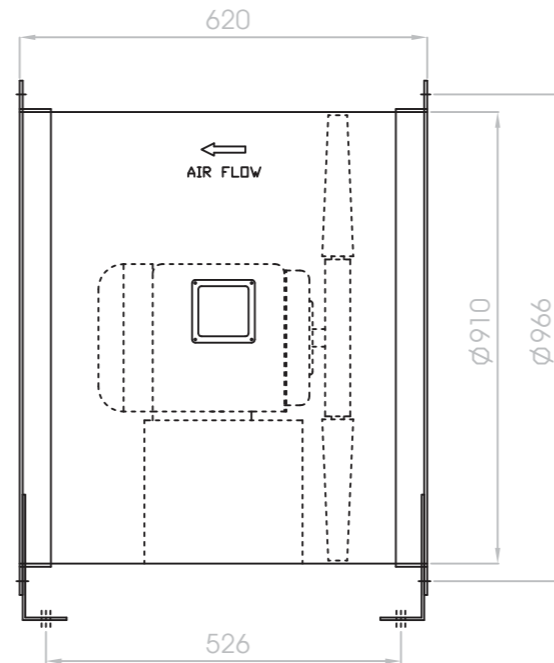
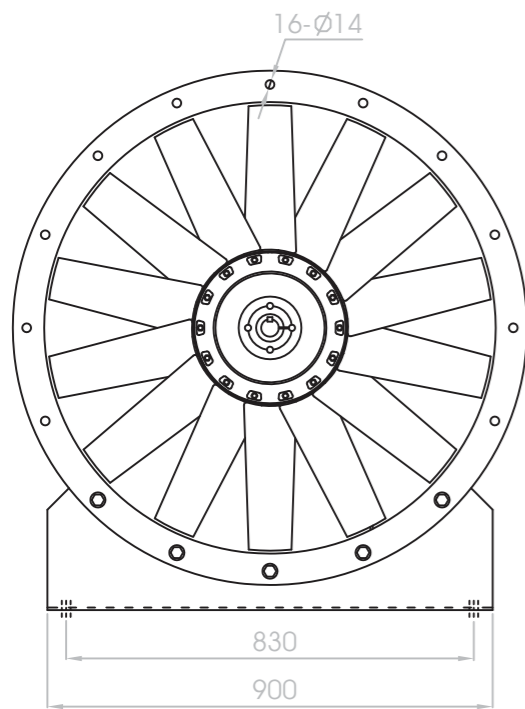
WAX 900

Axial Fan, Direct Driven



Wheel Diameter 900 mm.
Outlet Area 0.650 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 900-4-7	900	1440	10°-40°	2.2-7.5
WAX 900-6-7	900	950	10°-40°	0.75-5.5



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

WAX 900

Axial Fan, Direct Driven

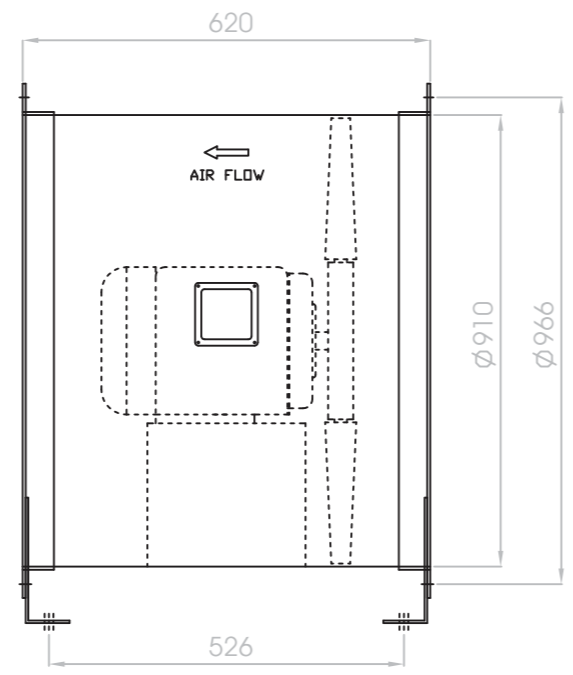
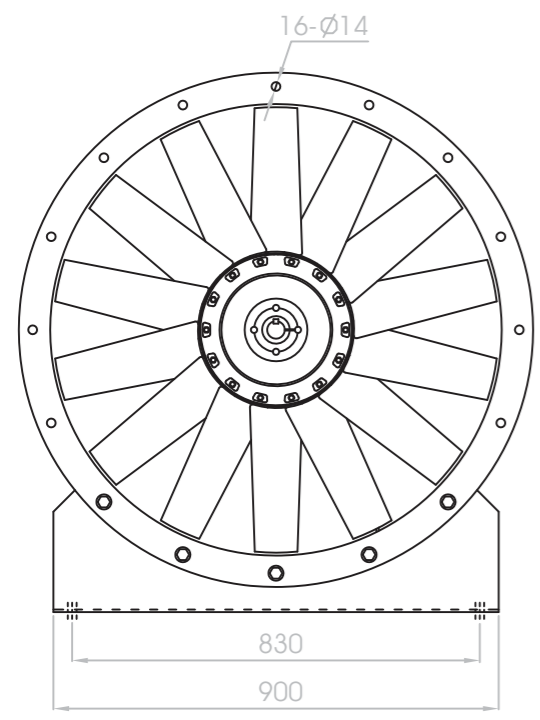
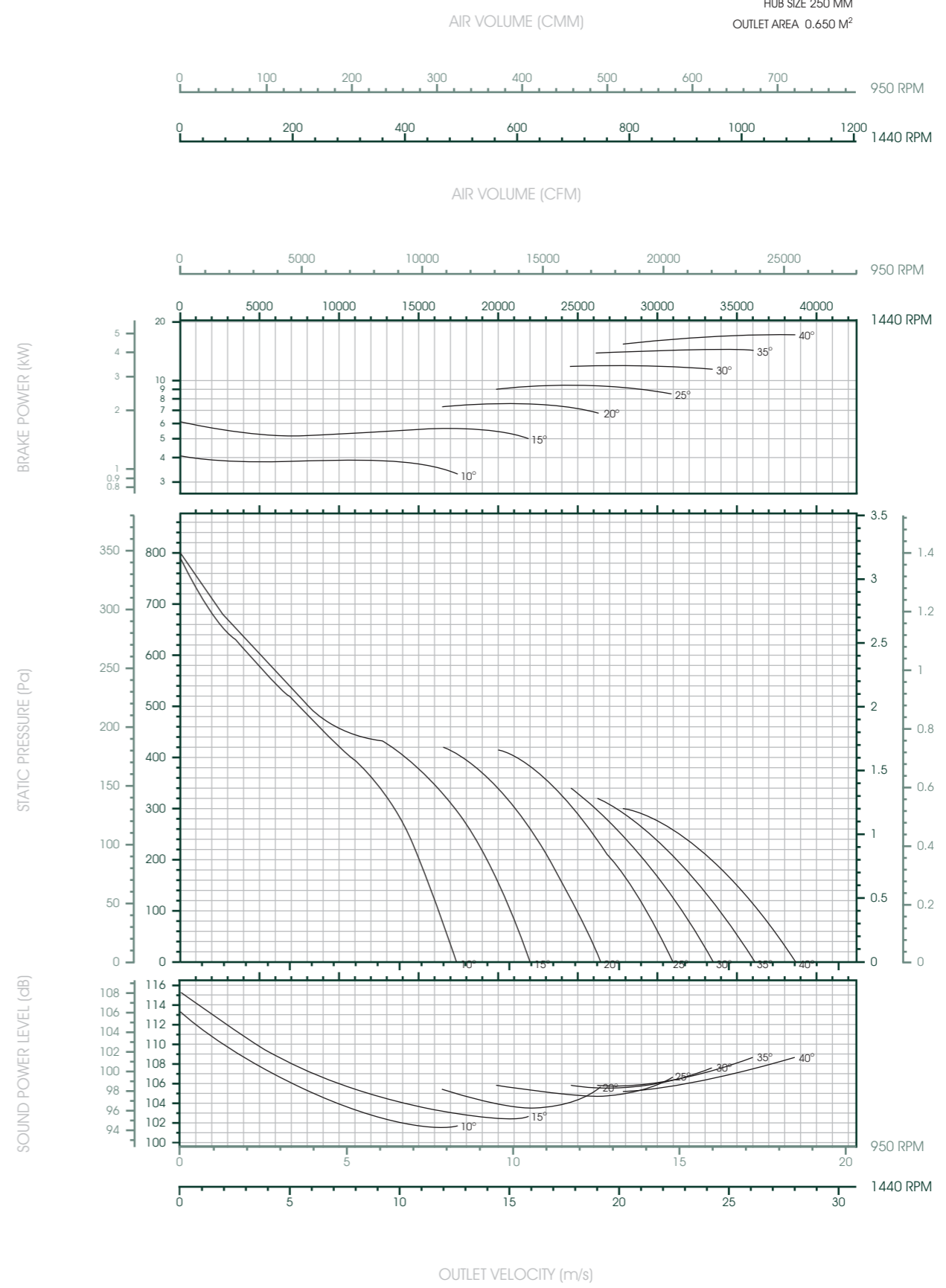


Wheel Diameter 900 mm.
Outlet Area 0.650 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

WAX 900-4-14 1440 RPM WAX 900-6-14 950 RPM

WHEEL DIAMETER 900 MM
 HUB SIZE 250 MM
 OUTLET AREA 0.650 M²

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 900-4-14	900	1440	10°-40°	2.2-7.5
WAX 900-6-14	900	950	10°-40°	0.75-5.5



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

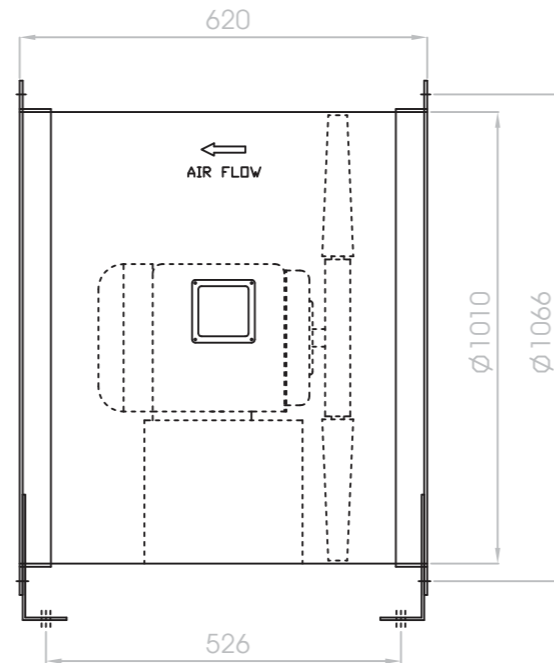
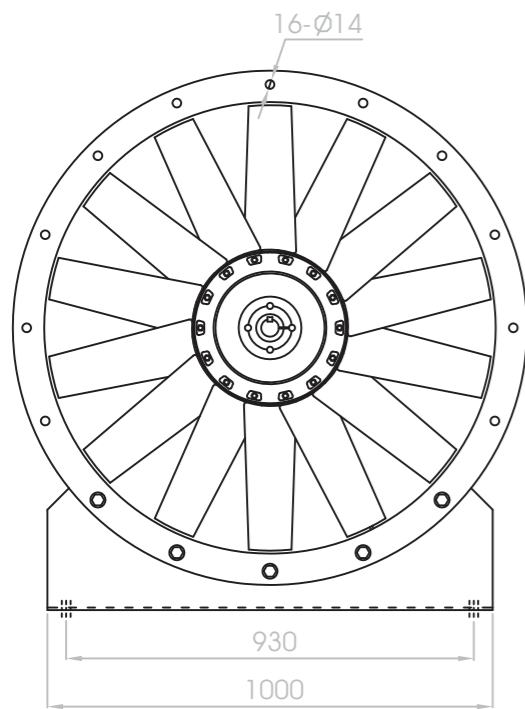
WAX 1000

Axial Fan, Direct Driven



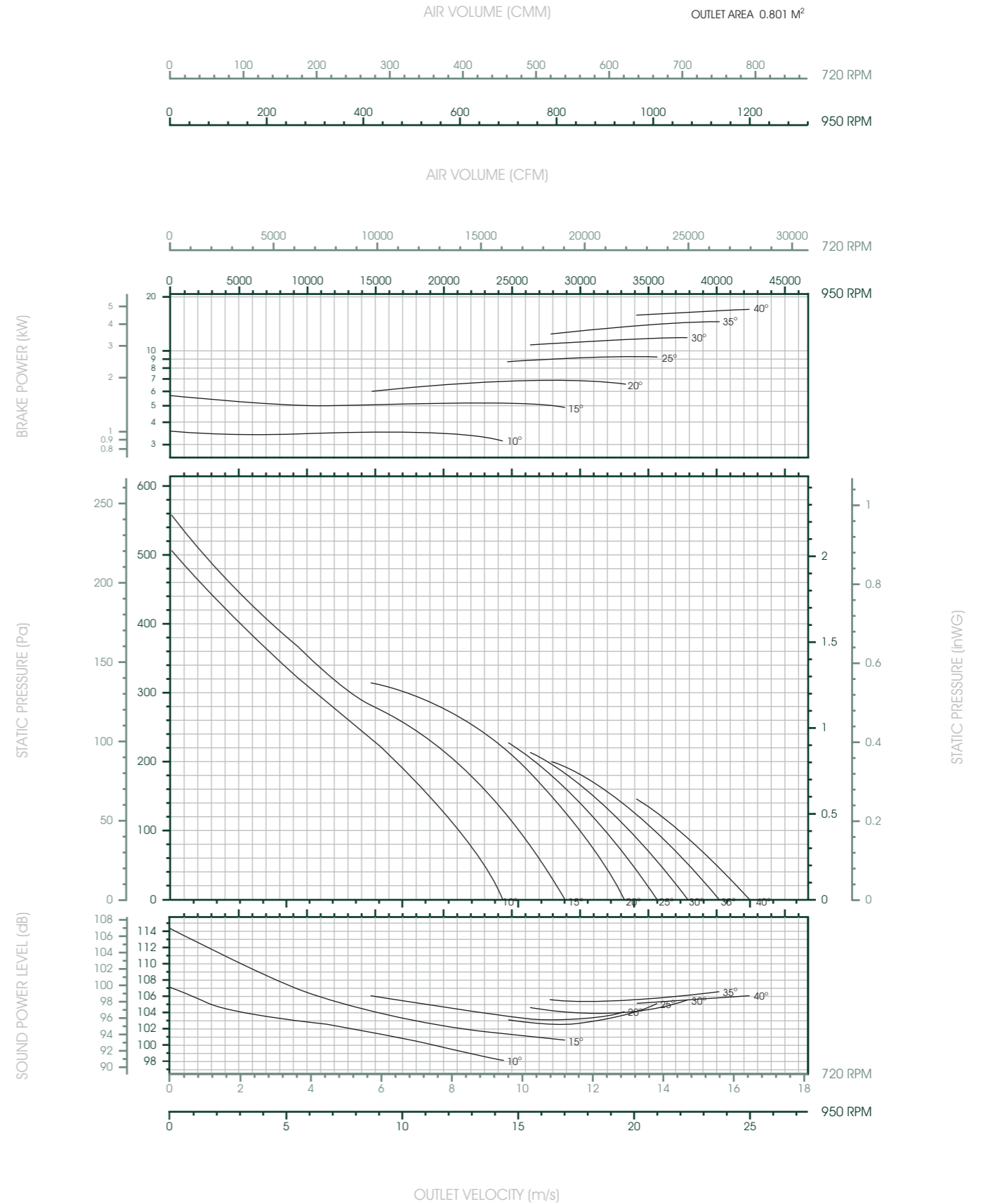
Wheel Diameter 1000 mm.
Outlet Area 0.801 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 1000-4-7	1000	950	10°-40°	3.0-7.5
WAX 1000-6-7	1000	720	10°-40°	1.5-5.5



WAX 1000-4-7 950 RPM | WAX 1000-6-7 720 RPM

WHEEL DIAMETER 1000 MM
HUB SIZE 250 MM
OUTLET AREA 0.801 M²



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

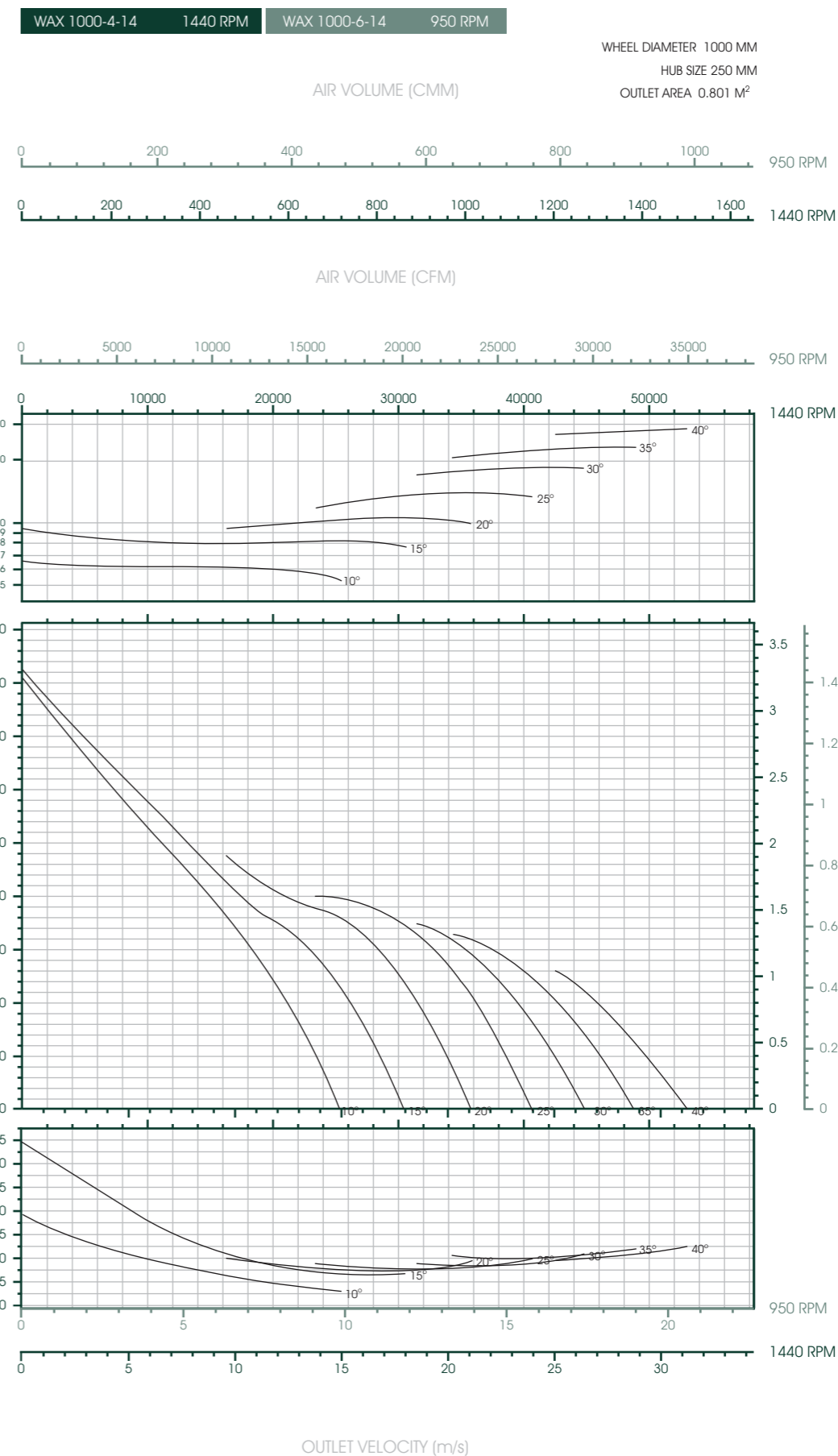
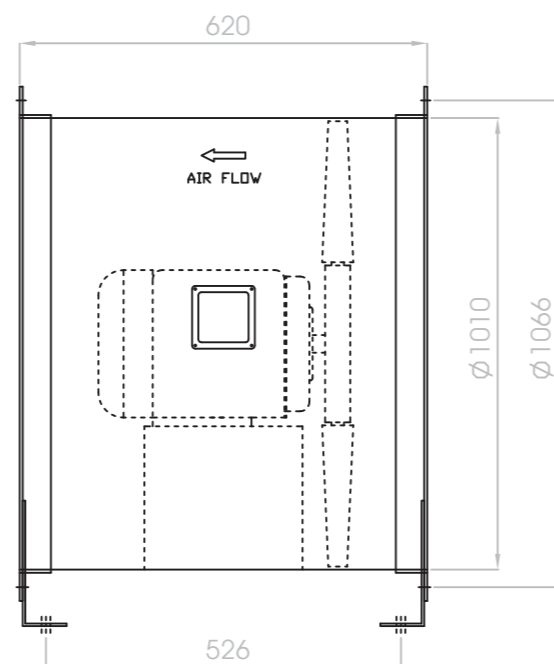
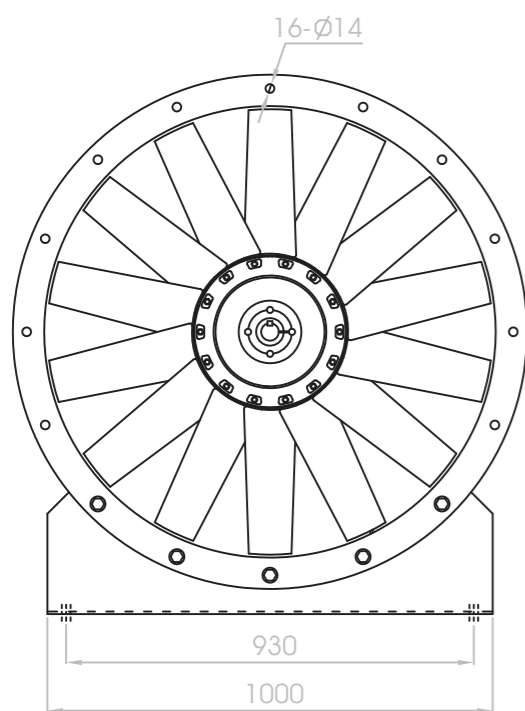
WAX 1000

Axial Fan, Direct Driven



Wheel Diameter 1000 mm.
Outlet Area 0.801 m²
Material Casing: Painted Mild Steel
 Impeller: Air Foil, Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 1000-4-14	1000	1440	10°-40°	3.0-7.5
WAX 1000-6-14	1000	950	10°-40°	1.5-5.5



1) Performance ratings do not include the effects of appurtenances (accessories).
 2) Performance certified is for installation type D - Ducted inlet, Ducted outlet.
 3) The AMCA Certified Ratings Seal applies to air performance ratings only.

CONVERSION FACTORS

Length		
Centimetres	x 0.3937	= Inches
Fathoms	x 6.0	= Feet
Feet	x 12.0	= Inches
Feet	x 0.3048	= Meters
Inches	x 2.54	= Centimetres
Kilometres	x 0.6214	= Miles
Metres	x 3.281	= Feet
Metres	x 39.37	= Inches
Metres	x 1.094	= Yards
Miles	x 5280.0	= Feet
Miles	x 1.609	= Kilometres
Rods	x 5.5	= Yards
Yards	x 0.9144	= Metres

Pressure		
millibar	x 100	= Pascal
Pascal	x 4.02×10^3	= Inches water
Pascal	x 0.1021	= millimetre aqueous
Inches water gauge	x 25.4	= millimetre aqueous

Flow rate		
Cubic metre per hour	x 0.5886	= Cubic feet per minute
Cubic metre per minute	x 35.315	= Cubic feet per minute
liters per second	x 2.1189	= Cubic feet per minute

Torque		
Gram-centimetres	x 0.139	= Ounce-inches
Newton-metres	x 0.7376	= Pound-feet
Newton-metres	x 8.851	= Pound-inches

Volume		
Cubic feet	x 0.283	= Cubic metres
Cubic feet	x 7.481	= Gallons
Cubic inches	x 0.5541	= Ounces (fluid)
Cubic metres	x 5.31	= Cubic feet
Cubic metres	x 1.308	= Cubic yards
Cubic yards	x 0.7646	= Cubic metres
Gallons	x 0.1337	= Cubic feet
Gallons	x 3.785	= Liters

Force and Weight		
Kilograms	x 2.205	= Pounds
Newtons	x 0.2248	= Pounds (force)
Ounces	x 28.35	= Grams
Pounds	x 453.6	= Grams
Tons (short)	x 907.2	= Kilograms
Tons (short)	x 2000	= Pounds

Energy or Work		
Btu	x 778.2	= Foot-Pounds
Btu	x 252.0	= Gram-calories

Power		
Btu per hour	x 0.293	= Watts
Horsepower	x 550.0	= Foot-pounds per second
Horsepower	x 746.0	= Watts

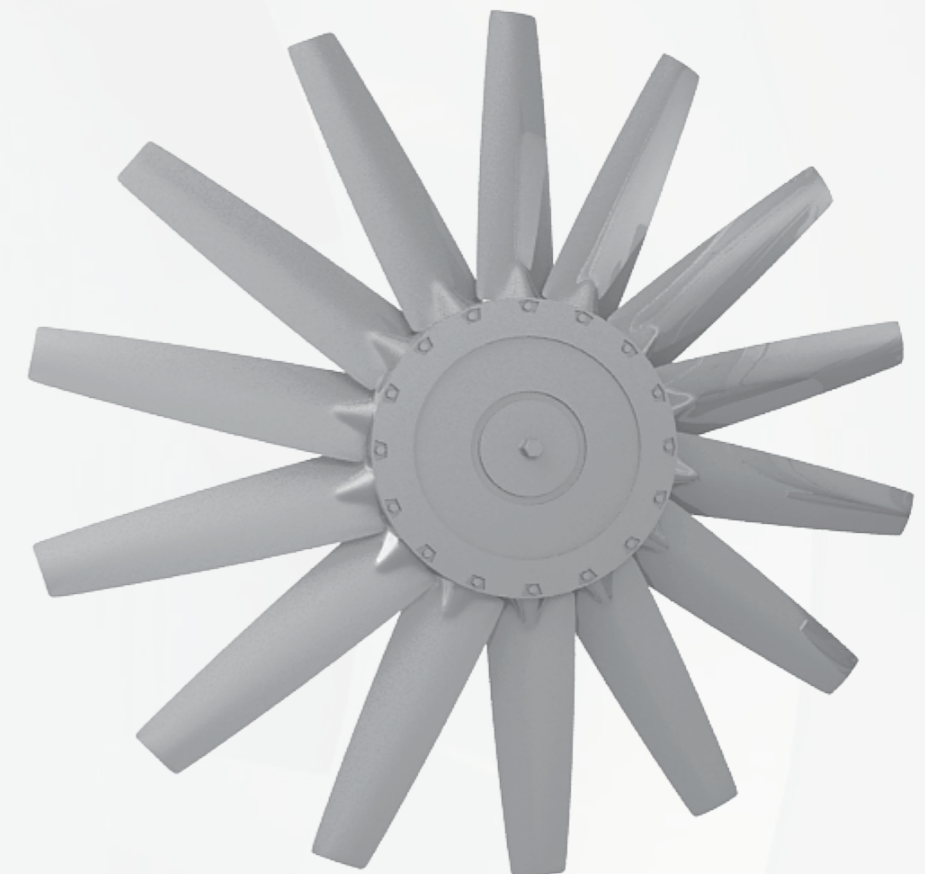
Plane angle		
Degrees	x 0.0175	= Radians
Minutes	x 0.01667	= Degrees
Minutes	x 2.9×10^{-4}	= Radians
Quadrants	x 90.0	= Degrees
Quadrants	x 1.5708	= Radians

* Pounds are U.S. avoirdupois.
* Gallons and quarts are U.S.



AXIAL FAN Direct Driven

WAX 1250-1600



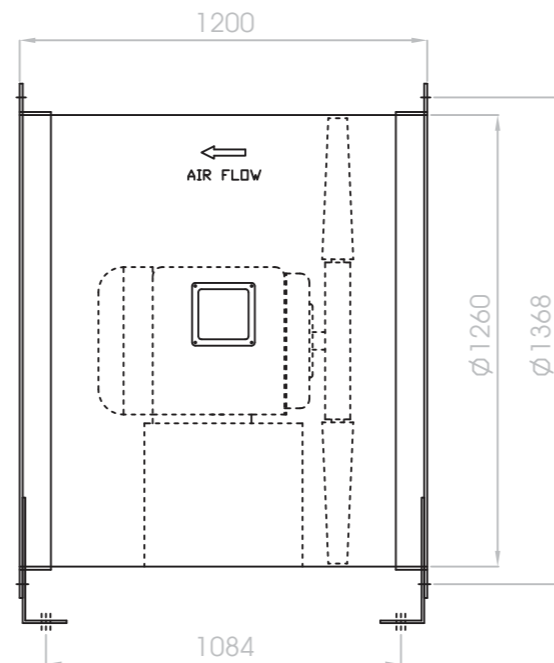
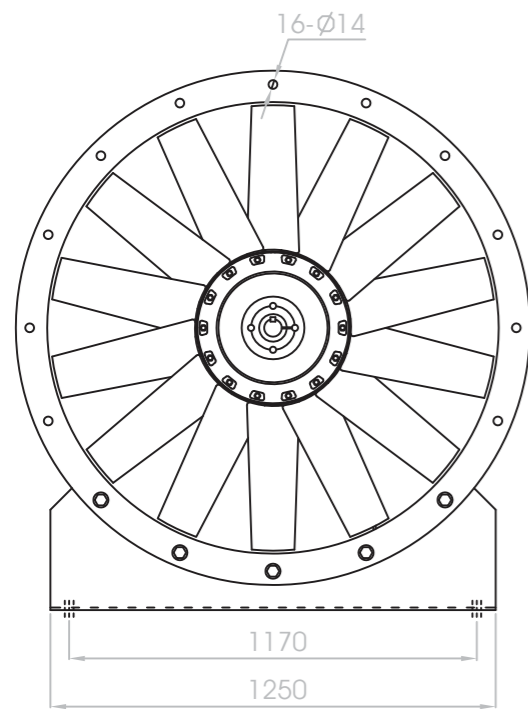
WAX 1250

Axial Fan, Direct Driven

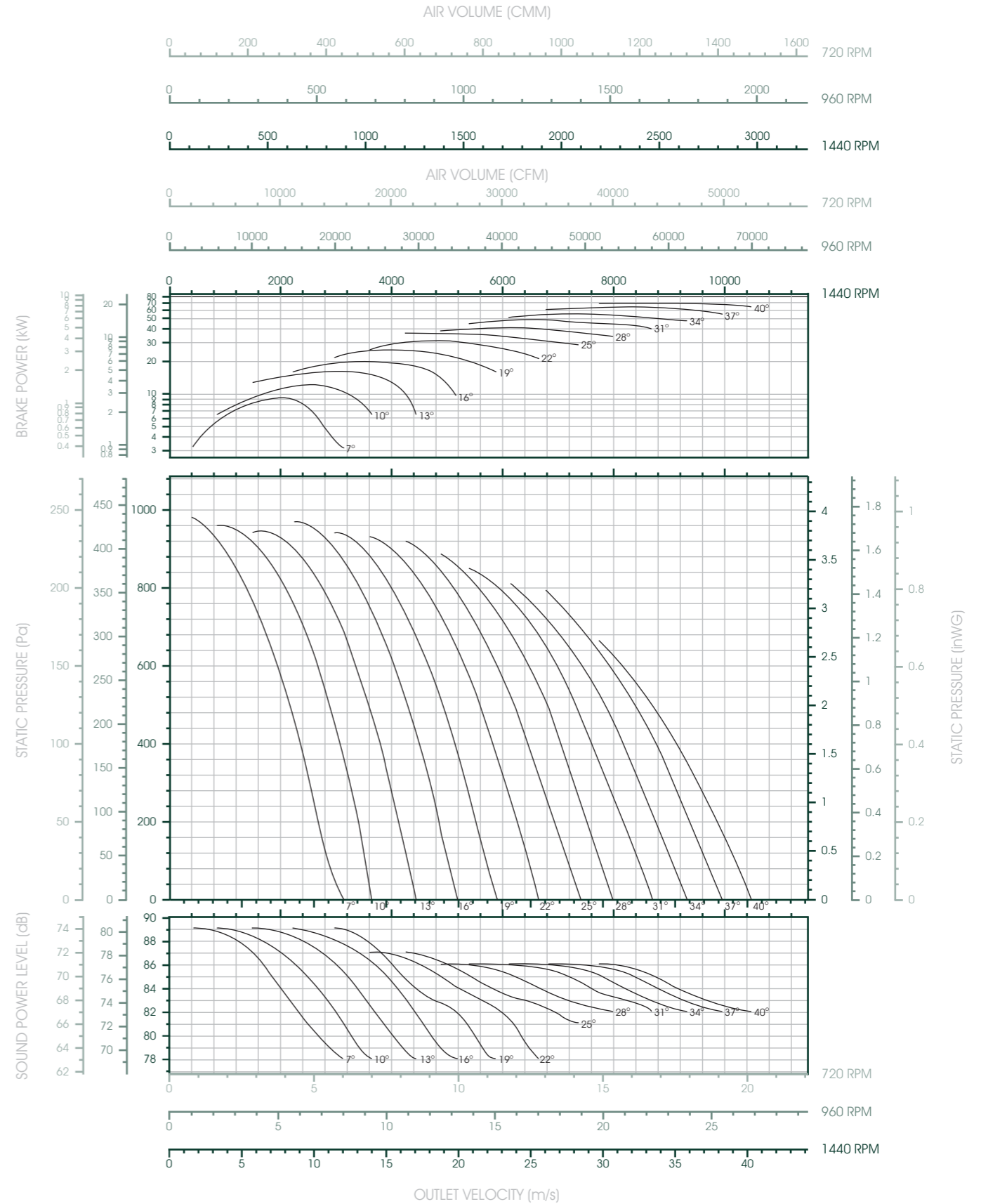


Wheel Diameter 1250 mm.
Outlet Area 1.247 m²
Material Casing: Painted Mild Steel
 Impeller: Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 1250-4-7	1250	1440	7°-40°	11.0-30.0
WAX 1250-6-7	1250	960	7°-40°	3.7-22.0
WAX 1250-8-7	1250	720	7°-40°	2.2-15.0



WAX 1250-4-7 1440 RPM | WAX 1250-6-7 960 RPM | WAX 1250-8-7 720 RPM
 WHEEL DIAMETER 1250 MM
 OUTLET AREA 1.247 M²



WAX 1250-7 is not licensed to bear the AMCA Certified Ratings Seal.

WAX 1250

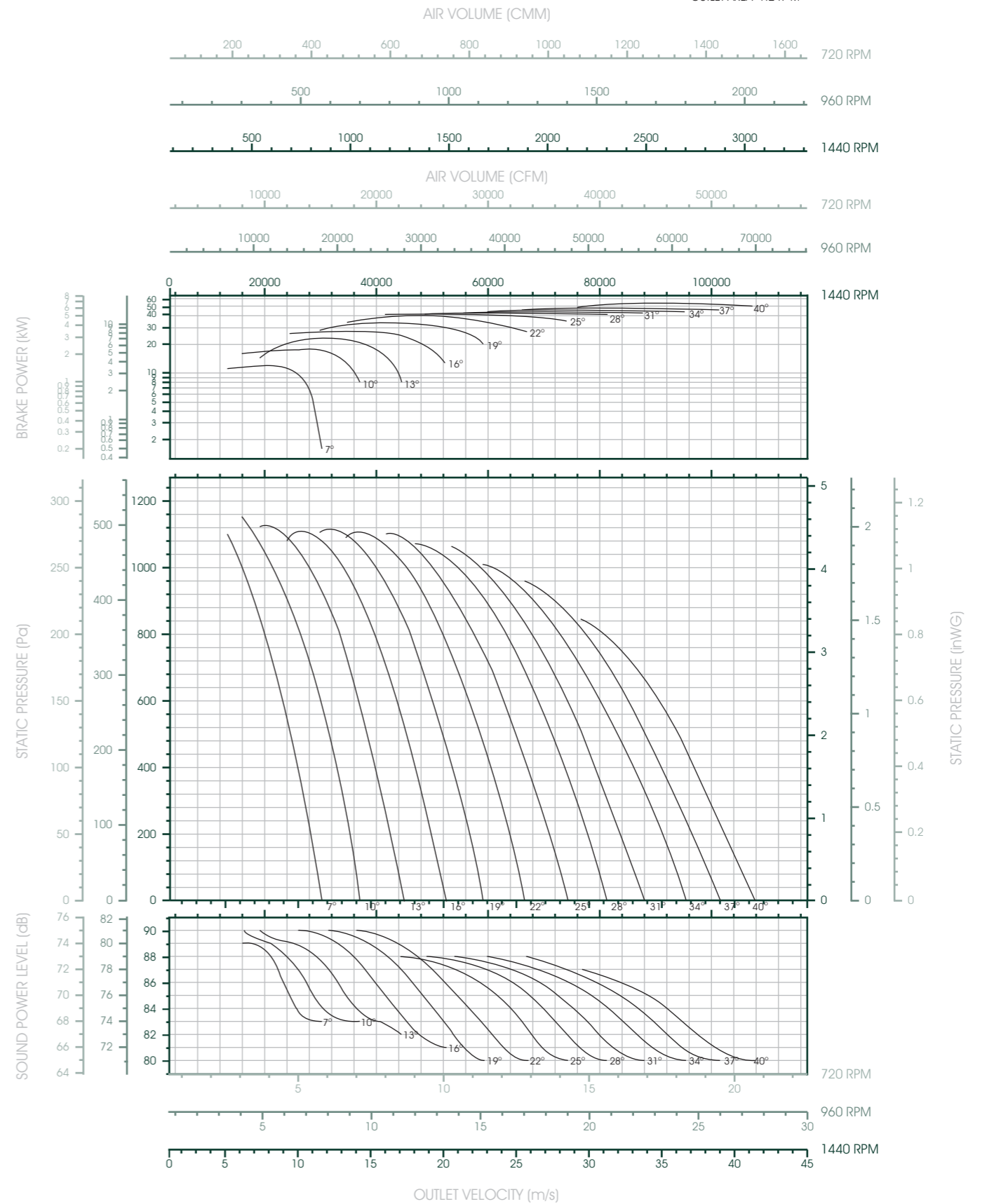
Axial Fan, Direct Driven



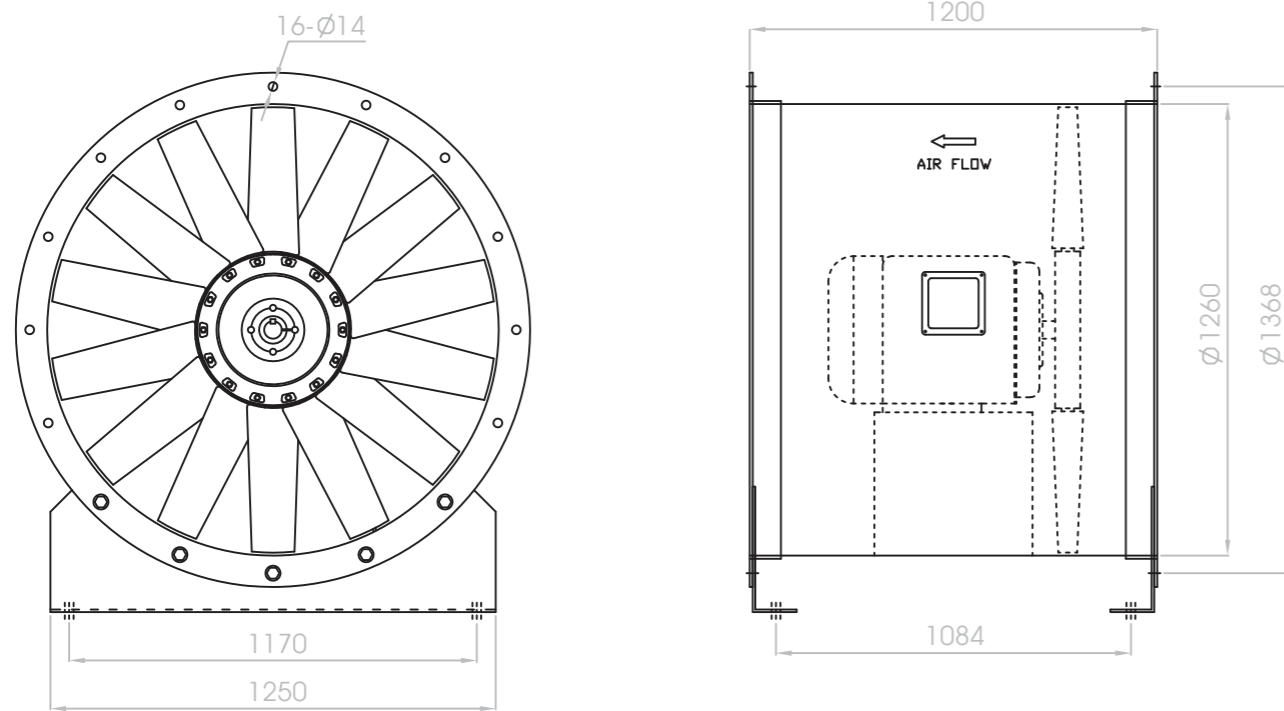
Wheel Diameter 1250 mm.
Outlet Area 1.247 m²
Material Casing: Painted Mild Steel
 Impeller: Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

WAX 1250-4-11 1440 RPM WAX 1250-6-11 960 RPM WAX 1250-8-11 720 RPM
 WHEEL DIAMETER 1250 MM
 OUTLET AREA 1.247 M²

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 1250-4-11	1250	1440	7°-40°	15.0-30.0
WAX 1250-6-11	1250	960	7°-40°	5.5-22.0
WAX 1250-8-11	1250	720	7°-40°	2.2-15.0



WAX 1250-11 is not licensed to bear the AMCA Certified Ratings Seal.



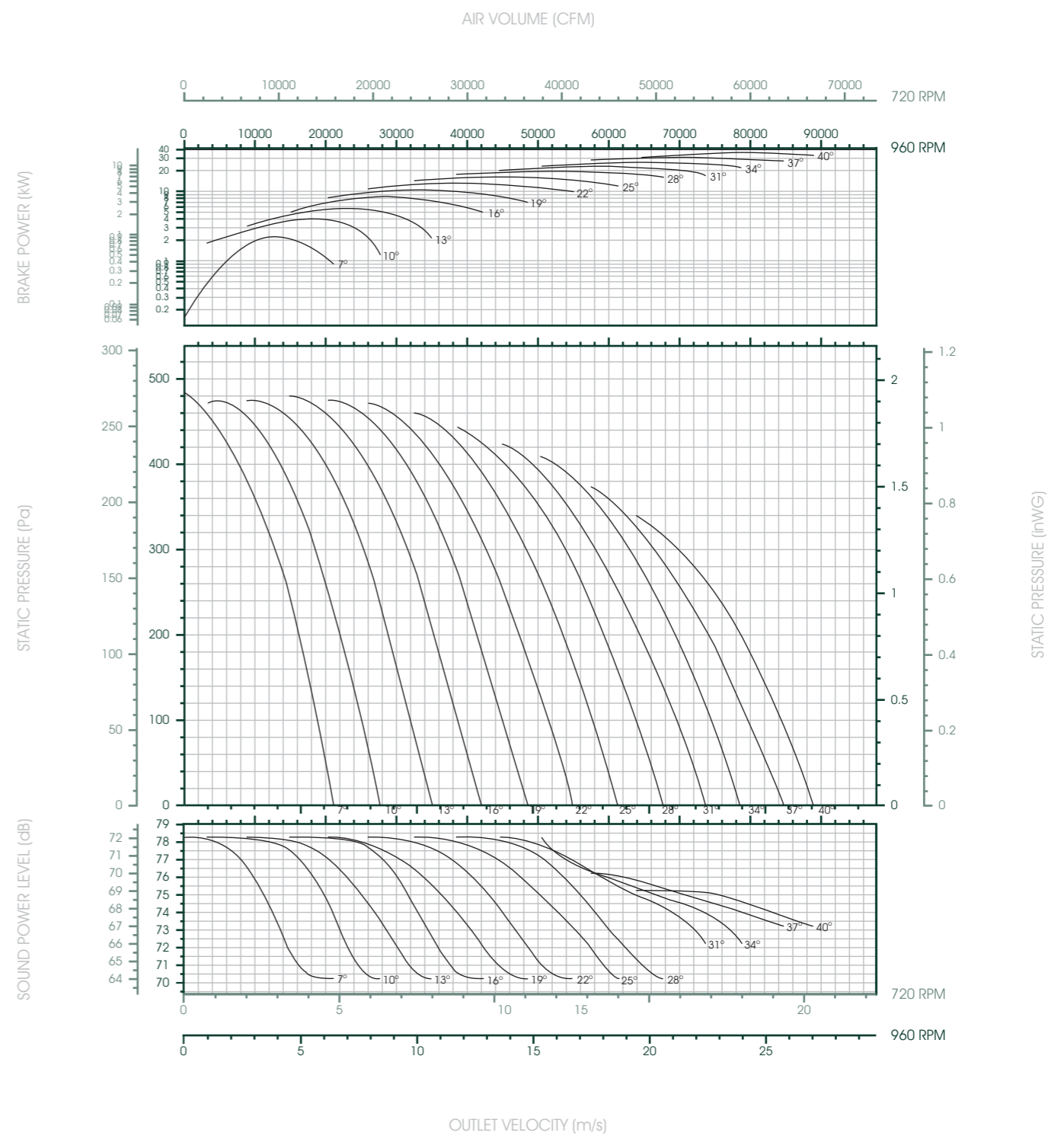
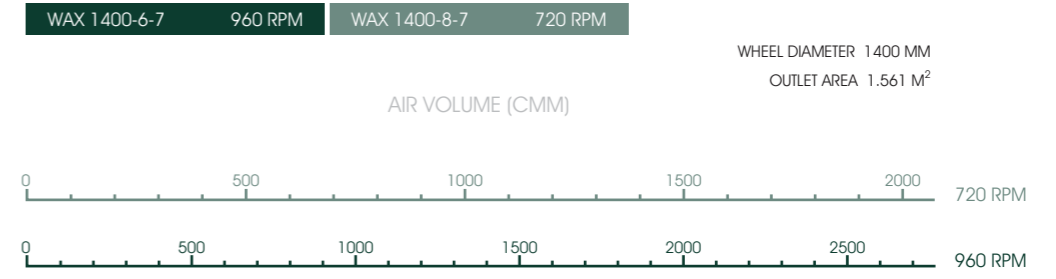
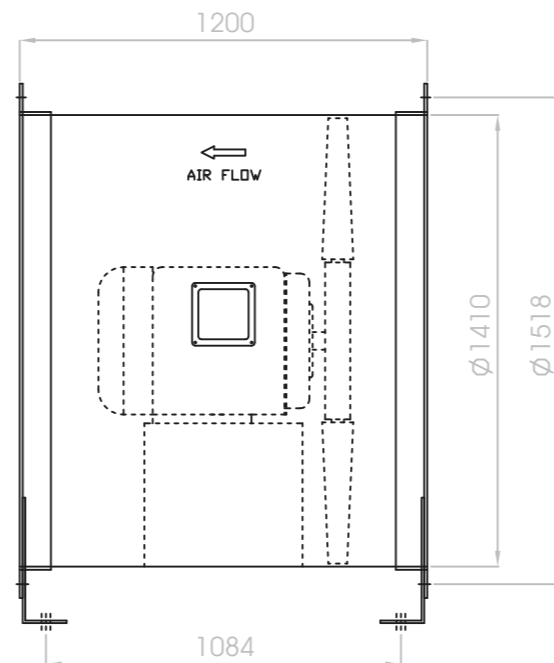
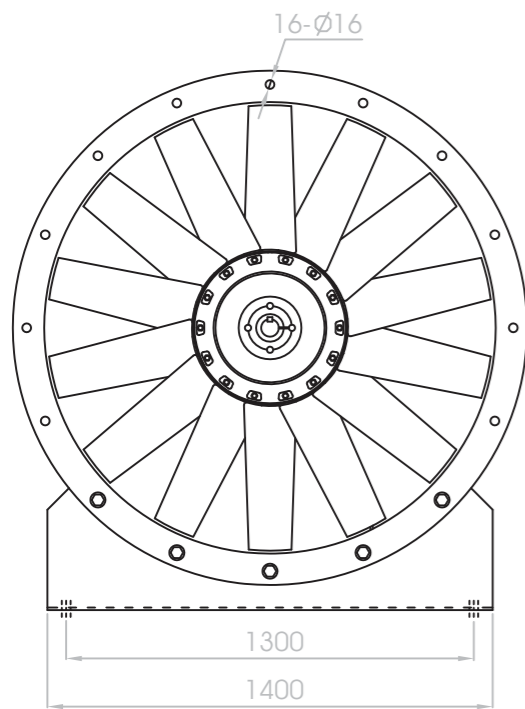
WAX 1400

Axial Fan, Direct Driven



Wheel Diameter 1400 mm.
Outlet Area 1.561 m²
Material Casing: Painted Mild Steel
 Impeller: Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 1400-6-7	1400	960	7°-40°	3.7-22.0
WAX 1400-8-7	1400	720	7°-40°	2.2-15



WAX 1400-7 is not licensed to bear the AMCA Certified Ratings Seal.

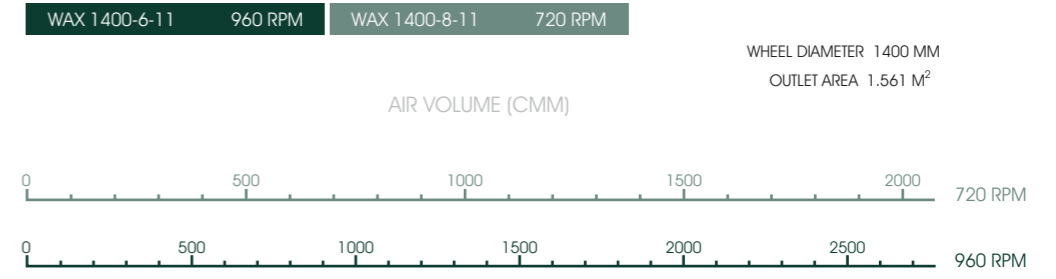
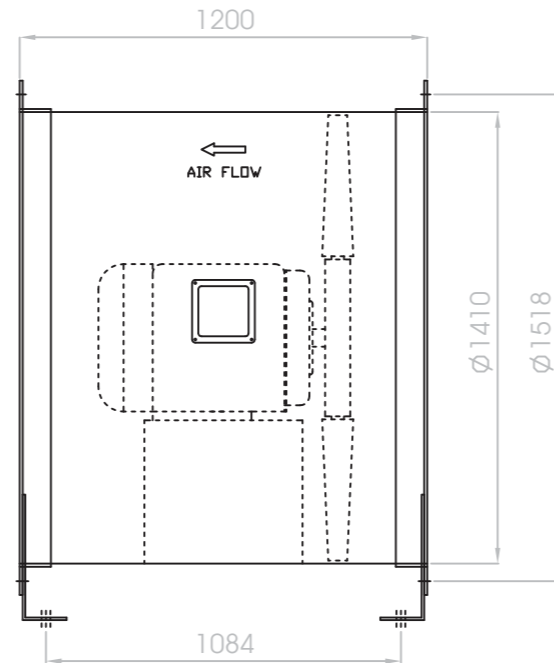
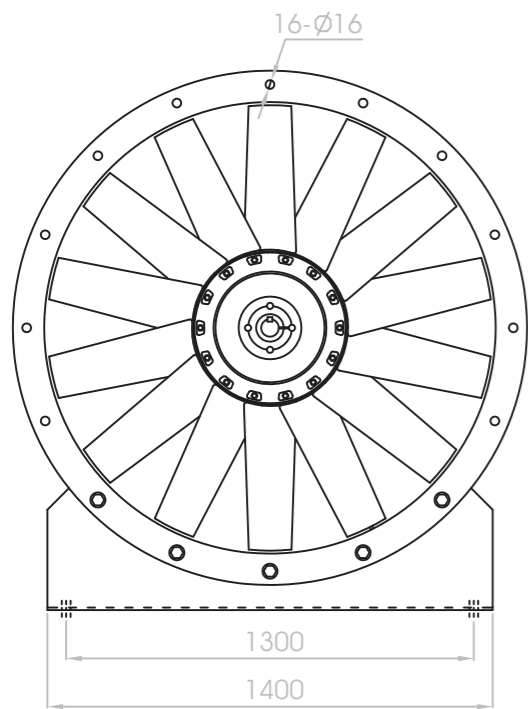
WAX 1400

Axial Fan, Direct Driven

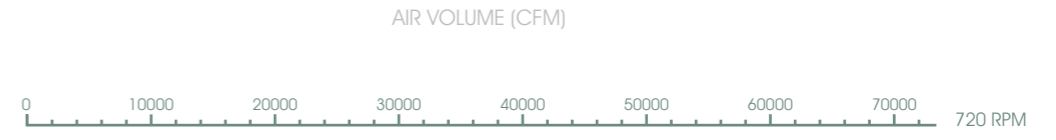


Wheel Diameter 1400 mm.
Outlet Area 1.561 m²
Material Casing: Painted Mild Steel
 Impeller: Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

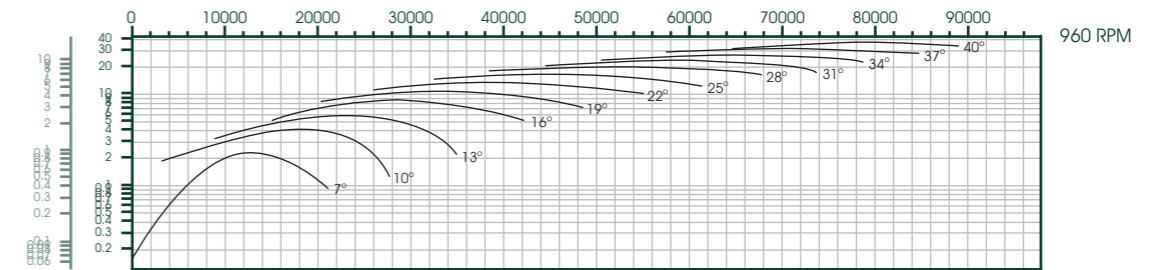
Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 1400-6-11	1400	960	7°-40°	5.5-22.0
WAX 1400-8-11	1400	720	7°-40°	2.2-15.0



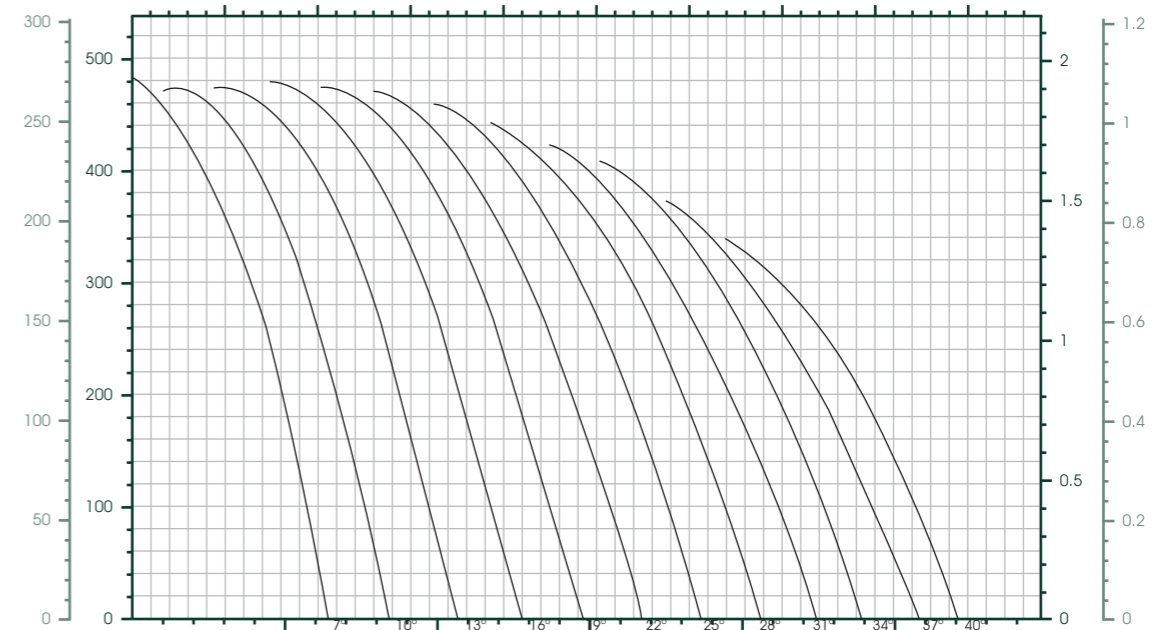
WHEEL DIAMETER 1400 MM
OUTLET AREA 1.561 M²



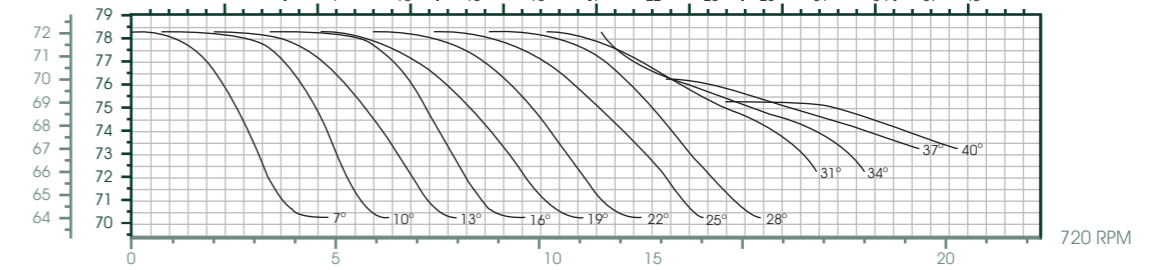
BRAKE POWER (kW)



STATIC PRESSURE (Pa)



SOUND POWER LEVEL (dB)



OUTLET VELOCITY (m/s)

WAX 1400-11 is not licensed to bear the AMCA Certified Ratings Seal.

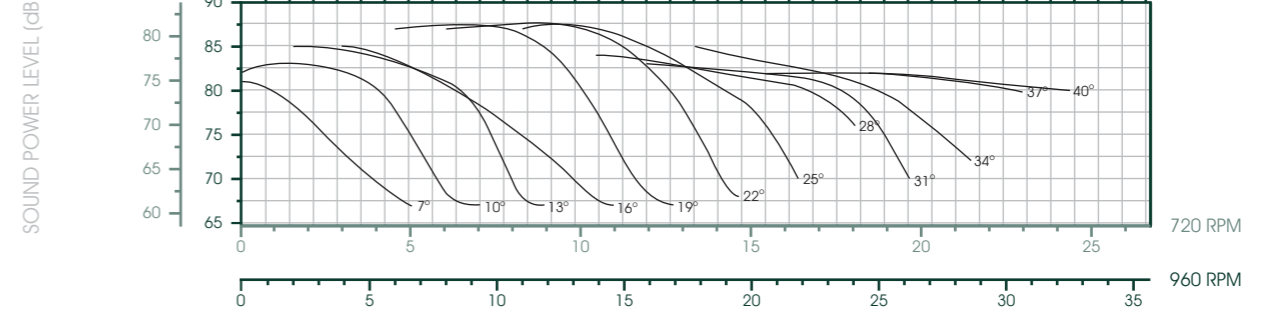
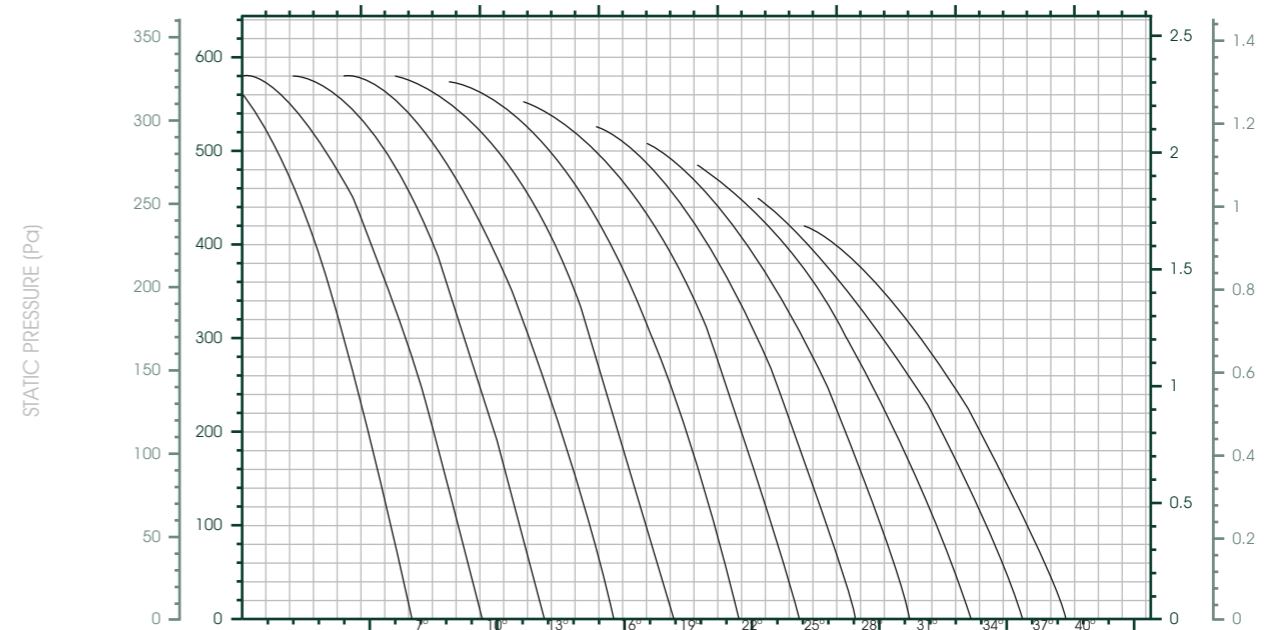
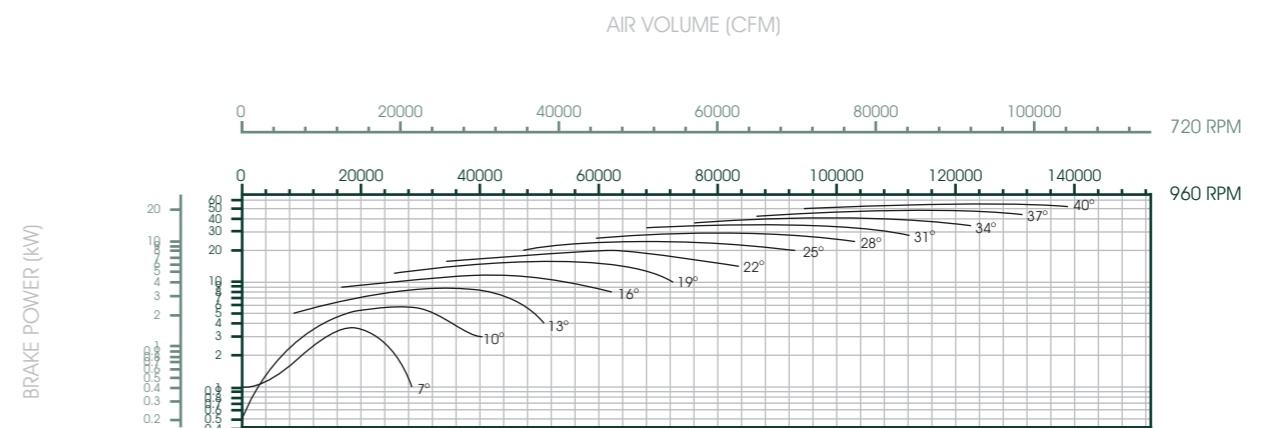
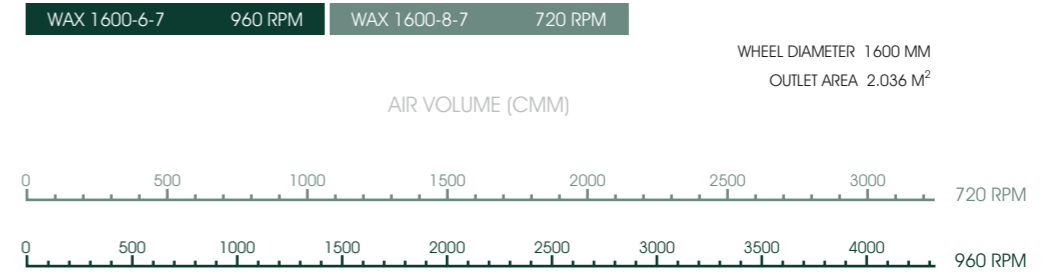
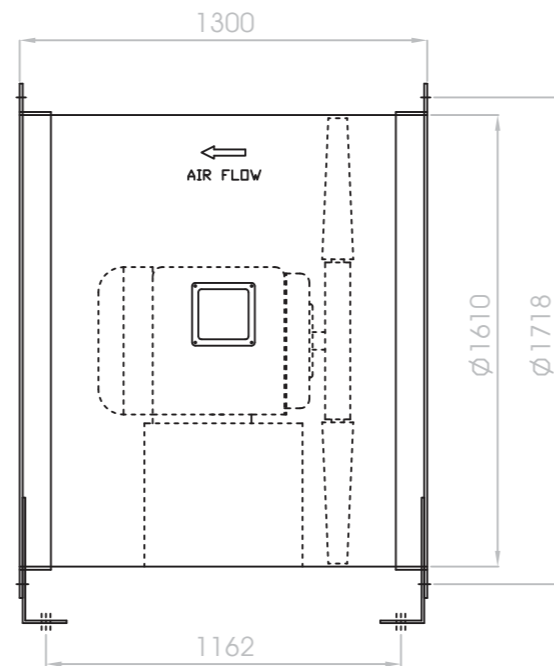
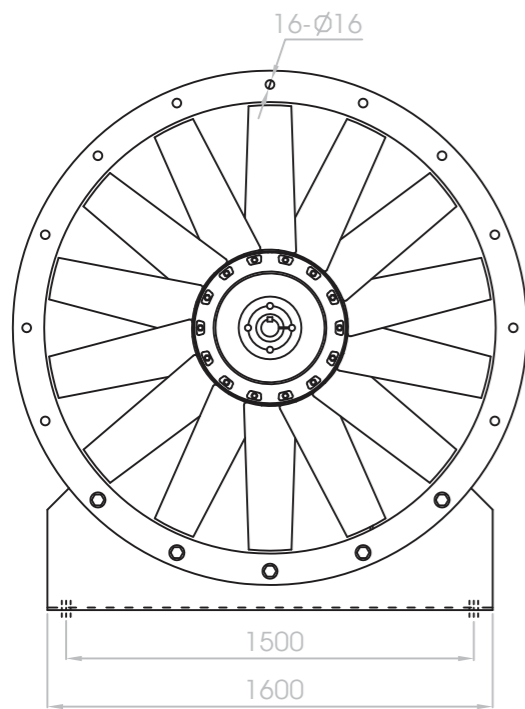
WAX 1600

Axial Fan, Direct Driven



Wheel Diameter 1600 mm.
Outlet Area 2.036 m²
Material Casing: Painted Mild Steel
 Impeller: Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 1600-6-7	1600	960	7°-40°	5.5-22.0
WAX 1600-8-7	1600	720	7°-40°	2.2-15.0



WAX 1600-7 is not licensed to bear the AMCA Certified Ratings Seal.

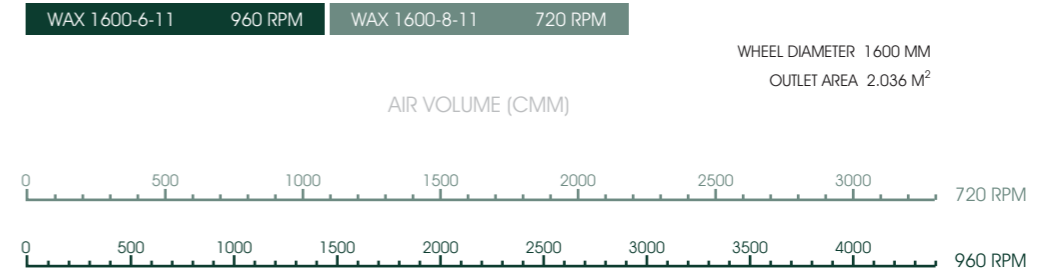
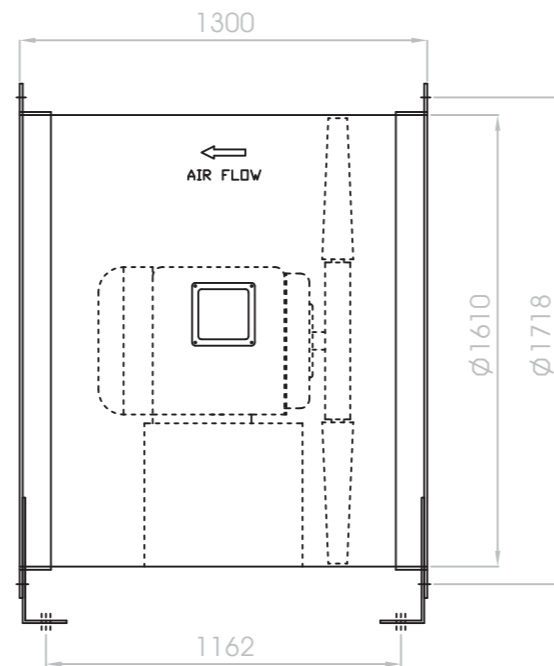
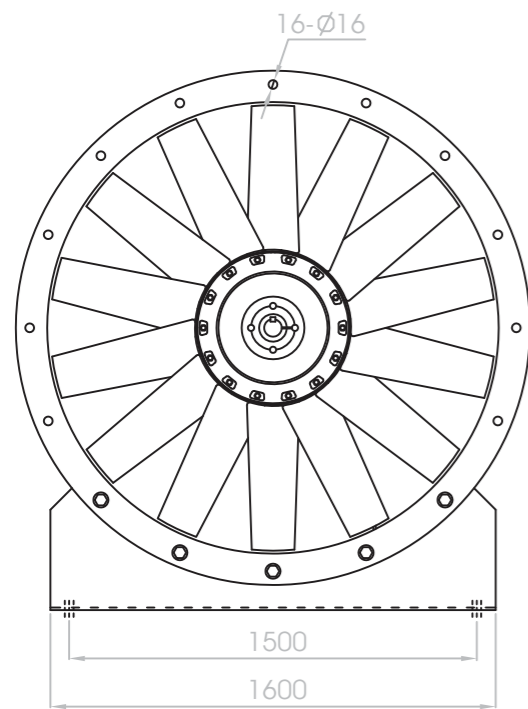
WAX 1600

Axial Fan, Direct Driven

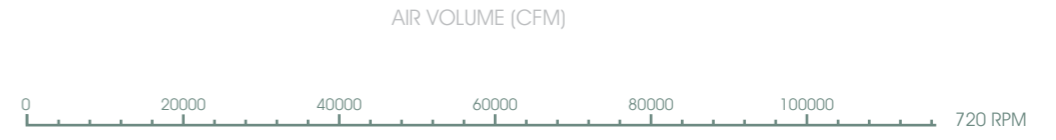


Wheel Diameter 1600 mm.
Outlet Area 2.036 m²
Material Casing: Painted Mild Steel
 Impeller: Die-Cast, Aluminium
 Hub: Die-Cast, Aluminium
Motor Class F, IP55

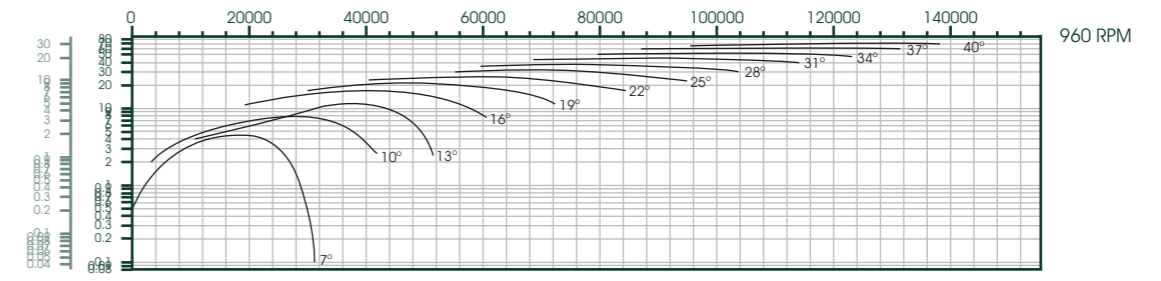
Model No.	DIA (mm.)	SPEED (RPM.)	PITCH ANGLE	OUT PUT (kW)
WAX 1600-6-11	1600	960	7°-40°	7.5-22.0
WAX 1600-8-11	1600	720	7°-40°	3.7-15.0



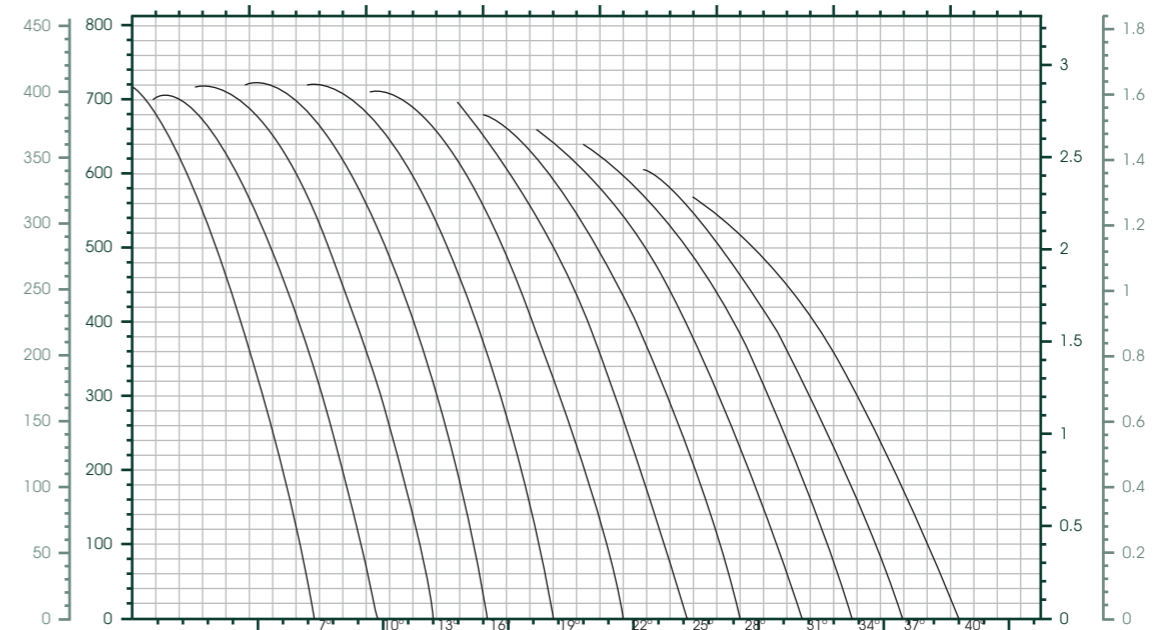
WHEEL DIAMETER 1600 MM
OUTLET AREA 2.036 M²



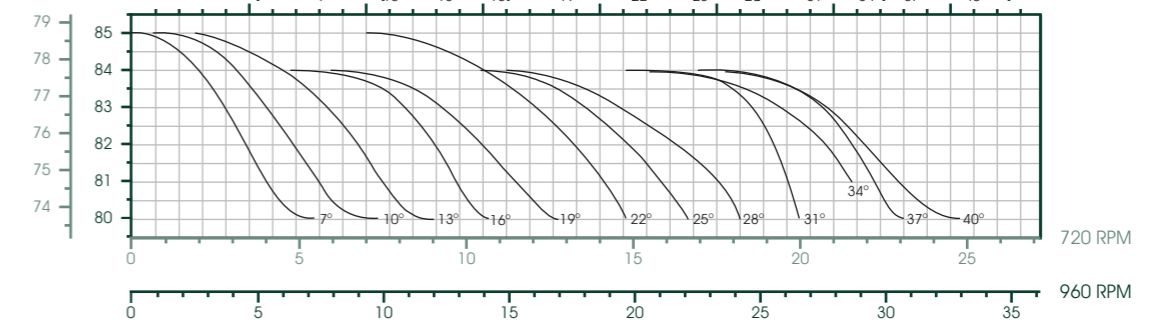
BRAKE POWER (kW)



STATIC PRESSURE (Pa)



SOUND POWER LEVEL (dB)

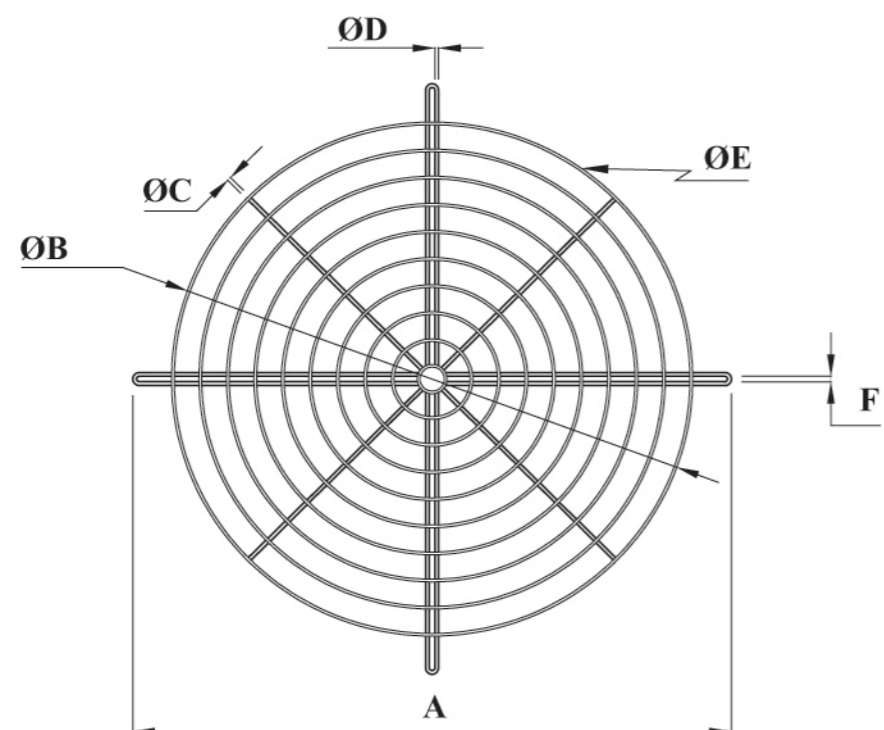


STATIC PRESSURE (inWG)

OUTLET VELOCITY (m/s)

WAX 1600-11 is not licensed to bear the AMCA Certified Ratings Seal.

GUIDE VANE FOR AXIAL FLOW FAN

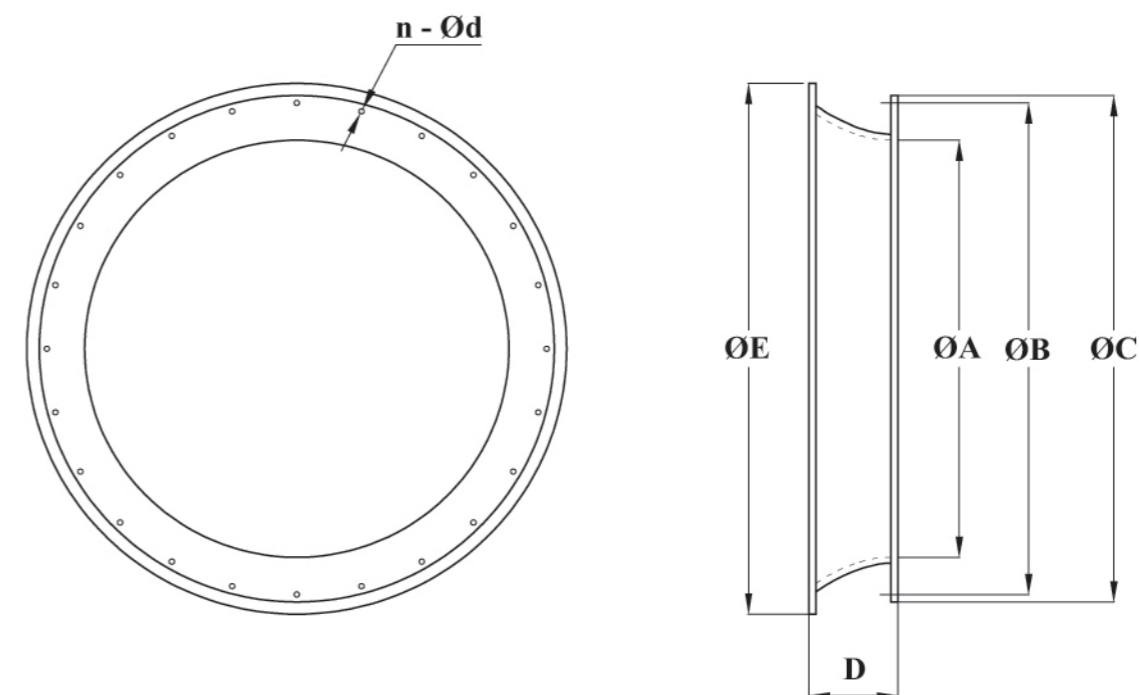


WAX / WAX-B

Unit : mm.

Model No.	A	ØB	ØC	ØD	ØE	F	Weigh (kg.)
315	396	310	6	6	4	14	1.00
355	435	340	6	6	4	14	1.00
400	477	370	6	6	4	14	1.00
450	526	420	6	6	4	14	1.25
500	580	474	6	6	4	14	1.40
560	665	555	6	6	4	14	1.50
630	734	625	8	8	6	14	1.80
710	811	700	8	8	6	14	2.00
800	897	780	8	8	6	14	3.00
900	994	880	8	8	6	14	4.00
1000	1103	970	8	8	6	14	4.50
1250	1356	1215	8	8	6	14	5.00
1400	1525	1355	8	8	6	14	6.50
1600	1725	1555	8	8	6	14	8.00

BELLMOUTH FOR AXIAL FLOW FAN

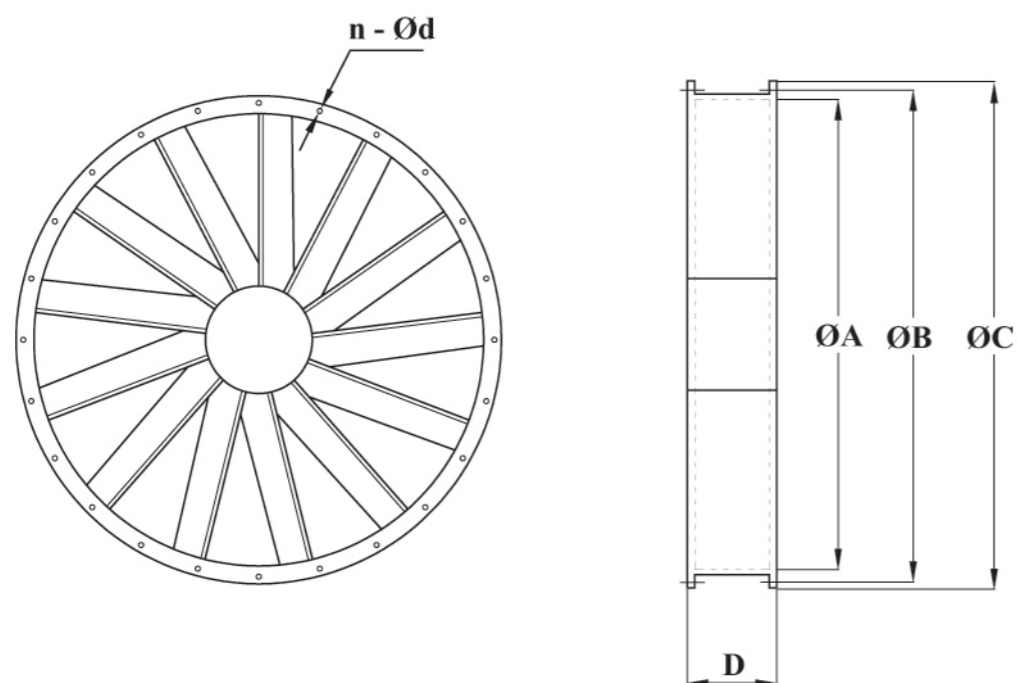


WAX / WAX-B

Unit : mm.

Model No.	ØA	ØB	ØC	D	ØE	n - Ød	Weigh (kg.)
315	323	363	399	125	410	8-12	1.00
355	363	403	439	125	450	8-12	1.00
400	408	450	484	135	490	12-12	1.00
450	458	500	534	135	550	12-12	1.50
500	508	550	584	135	595	12-12	1.50
560	568	624	668	135	690	16-14	1.50
630	638	694	738	135	750	16-14	1.80
710	720	776	820	170	833	16-14	2.00
800	804	860	904	200	952	16-14	2.50
900	910	966	1010	250	1000	16-14	3.00
1000	1010	1066	1110	250	1190	16-14	4.00
1250	1260	1368	1408	250	1500	16-14	6.00
1400	1410	1518	1568	250	1550	16-14	8.00
1600	1610	1718	1768	250	1570	16-14	10.00

GUIDE VANE FOR AXIAL FLOW FAN



WAX / WAX-B

Unit : mm.

Model No.	ØA	ØB	ØC	D	n-Ød	Weigh (kg.)
315	323	363	399	100	8-12	5.00
355	363	403	439	100	8-12	6.00
400	408	450	484	100	12-12	8.00
450	458	500	534	115	12-12	9.50
500	508	550	584	115	12-12	11.00
560	568	624	668	120	16-14	14.00
630	638	694	738	120	16-14	17.00
710	720	776	820	140	16-14	20.00
800	804	860	904	160	16-14	25.00
900	910	966	1010	160	16-14	30.00
1000	1010	1066	1110	175	16-14	37.50
1250	1260	1368	1408	200	16-14	50.00
1400	1410	1518	1568	200	16-14	55.00
1600	1610	1718	1768	200	16-14	60.00

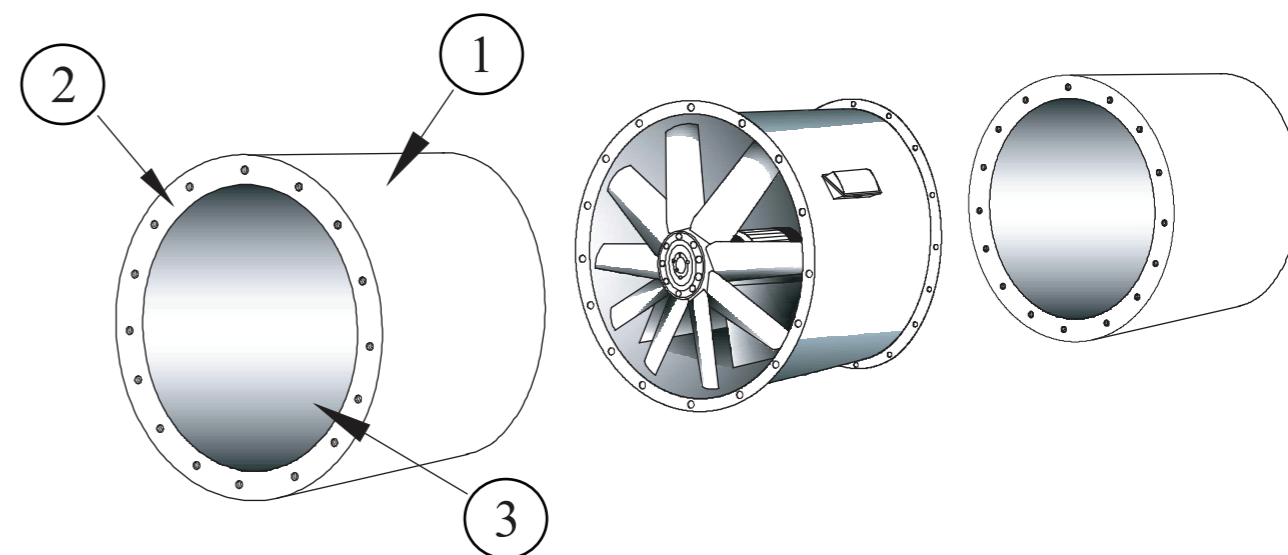
ROUND DUCT SILENCER

Type : Dynamic Attenuation

Duct silencer combine excellent acoustic performance with rigid construction.

Constructed of galvanized steel sheet, round shaped, high strength structure, flange type. All inside casing are lined by fiberglass insulation with glass cloth facing and covered with perforated galvanized steel sheet for protecting all fiberglass surface from erosion.

High Dynamic Insertion Loss, Low static Pressure Drop suitable for mouting to Axial fan for noise reduction form its noise source effectively.



Features

- 1) Casing, constructed of galvanized steel sheet.
- 2) Flanges, constructed of heavy guage steel plate, Welded to casing and attached to small flangeformed from the casing edge to ensure rigidity and without leakage.
- 3) Internal liner, all inside casing are lined by fiberglass insulation 48 kg/m³ dense, 50 mm.thickwith glass cloth facing.

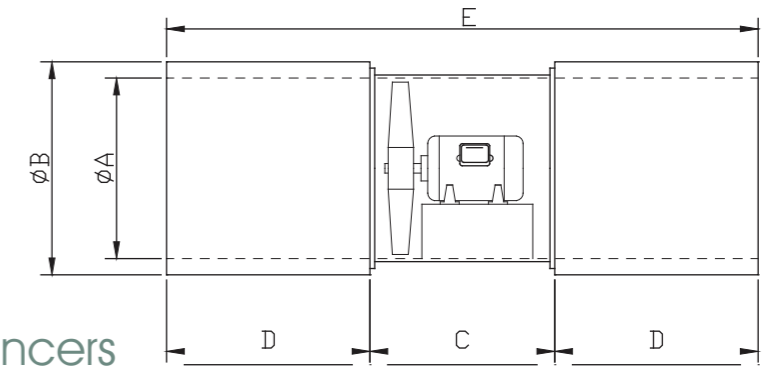
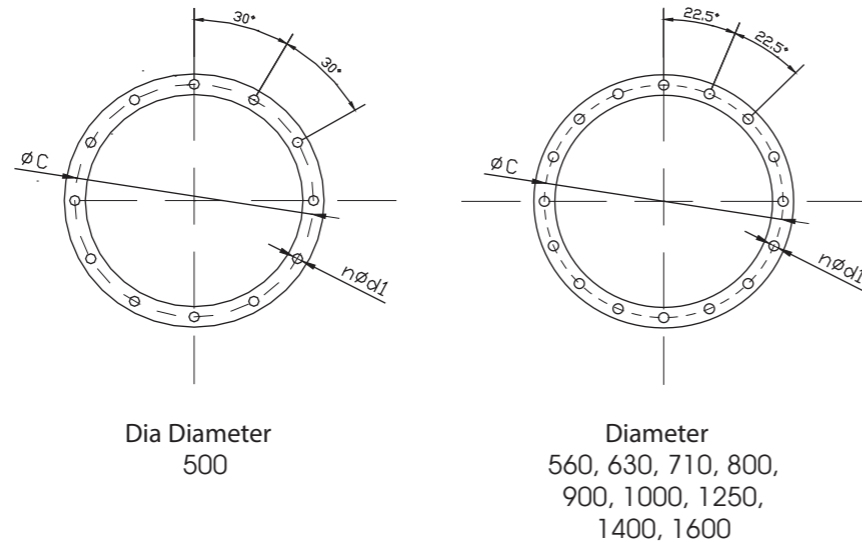
DYNAMIC INSERTION LOSS RATING (dB)

DIMENSION AND WEIGHT

Bore Dia. mm (D)	Length	Octave-Band Mid Frequencies Hz							
		63	125	250	500	1K	2K	4K	8K
500	1D	2	3	6	13	14	10	10	5
	2D	3	4	8	19	18	14	11	10
560	1D	2	4	7	14	14	9	10	7
	2D	3	5	9	19	18	14	12	11
630	1D	2	5	7	15	13	8	9	8
	2D	4	6	9	19	19	14	13	12
710	1D	3	5	7	15	13	9	9	8
	2D	4	6	9	19	17	13	12	11
800	1D	3	5	8	16	12	9	9	8
	2D	4	6	10	17	13	11	10	8
900	1D	3	5	10	17	13	11	10	8
	2D	4	6	12	19	15	12	11	10
1000	1D	4	5	11	16	11	10	8	9
	2D	4	6	13	19	14	12	11	11
1250	1D	4	6	12	17	10	9	8	7
	2D	4	6	14	19	14	11	11	9
1400	1D	4	6	12	16	10	8	7	6
	2D	4	7	14	18	13	10	10	8
1600	1D	4	7	12	16	10	8	7	6
	2D	4	8	15	18	12	10	9	7

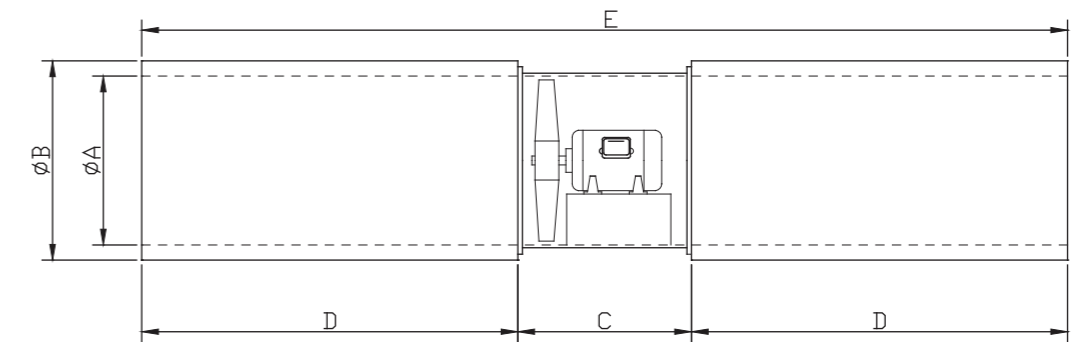
Dimensions Flange drillings

Dia. mm	ØC	n-Ød1
500	550	12-12
560	624	16-14
630	694	16-14
710	776	16-14
800	860	16-14
900	966	16-14
1000	1066	16-14
1250	1368	16-14
1400	1518	16-14
1600	1718	16-14



Fan & 1D Silencers
Unit : mm.

SIZE	ØA	ØB	C	D	E	WEIGHT (KG)
500	508	658	520	575	1670	180
560	568	718	520	635	1790	285
630	638	788	600	705	2010	320
710	720	870	650	765	2180	490
800	804	1004	700	900	2500	410
900	910	1110	700	1000	2700	520
1000	1010	1210	800	1100	3000	840
1250	1260	1460	900	1350	3600	1075
1400	1410	1610	1000	1500	4000	1350
1600	1610	1810	1000	1700	4400	1545



Fan & 2D Silencers
Unit : mm.

SIZE	ØA	ØB	C	D	E	WEIGHT (KG)
500	508	658	520	1075	2670	278
560	568	718	520	1195	2910	396
630	638	788	600	1335	3270	448
710	720	870	650	1495	3640	691
800	804	1004	700	1700	4100	645
900	910	1110	700	1900	4500	800
1000	1010	1210	800	2100	5000	1165
1250	1260	1460	900	2600	6100	1528
1400	1410	1610	1000	2900	6800	2051
1600	1610	1810	1000	3300	7600	2524

GUIDELINE WEIGHT (KG)

AXIAL FLOW FAN, DIRECT DRIVEN

Model No.	Motor	0.37	0.75	1.5	2.2	3.7	4.0	5.5	7.5	11.0	15.0	18.5	22.0
	Weight (kg)	12.0	17.0	23.5	32.0	43.0	43.0	62.0	77.0	115.0	132.0	160.0	180.0
WAX 315	30.0	42.0	47.0										
WAX 355	32.0	44.0	49.0	55.5									
WAX 400	33.0	45.0	50.0	56.5	65.0								
WAX 450	40.0	52.0	57.0	63.5	72.0	83.0	83.0						
WAX 500	49.0	61.0	66.0	72.5	81.0	92.0	92.0						
WAX 560	64.0	76.0	81.0	87.5	96.0	107.0	107.0						
WAX 630	67.0	79.0	84.0	90.5	99.0	110.0	110.0						
WAX 710	93.0	105.0	110.0	116.5	125.0	136.0	136.0						
WAX 800	110.0	122.0	127.0	133.5	142.0	153.0	153.0	172.0					
WAX 900	128.0		145.0	151.5	160.0	171.0	171.0	190.0	205.0				
WAX 1000	146.0			169.5	178.0	189.0	189.0	208.0	223.0				
WAX 1250	344.0			367.5	376.0	387.0	387.0	406.0	421.0	459.0	476.0	504.0	524.0
WAX 1400	391.0			414.5	423.0	434.0	434.0	453.0	468.0	506.0	523.0	551.0	571.0
WAX 1600	671.0					714.0	714.0	733.0	748.0	786.0	803.0	831.0	851.0

