

INFINAIR™

RTC

Roof Top Centrifugal Exhaust Fan



- Yingfei 5th-generation backward-curved centrifugal impeller
- Significantly improved efficiency, greater energy savings
- Substantially reduced noise, quieter operation
- Patented active cooling technology for extended service life
- All-aluminum construction, lightweight and cost-saving
- Balance grade up to G2.5



Company Profile

Yingfei Tongren Fan Co., Ltd. was established in September 2003. It is a high-end system solution and service provider integrating R&D, manufacturing, and sales in the fields of building ventilation, industrial ventilation, heating, and air treatment.

Upholding the future development concepts of "Green Environmental Protection" and "Intelligent Interconnection," Yingfei Tongren continuously invests in ventilation technology research and development, adheres to the core value of being "customer-centered," and consistently provides customers with reliable, convenient, energy-efficient, environmentally friendly, and smart-connected products and services.

Shanghai Headquarters:

Yingfei Tongren Fan Co., Ltd.
Building Area: 31,865 m²
Address: No. 55 Jiade Road, Jiading District, Shanghai

Haimen Production Base (Wholly-owned Subsidiary):

Yingfei Tongren (Jiangsu) Fan Co., Ltd.
Building Area: 67,841 m²
Address: No. 1833 Guangzhou Road, Economic Development Zone, Haimen District, Nantong City, Jiangsu Province

Service Network:

The company's sales and service network covers major regions across China and worldwide, including Shanghai, Beijing, Guangzhou, Shenzhen, Guangxi, Anhui, Shaanxi, Henan, Hunan, Hubei, Fujian, Chengdu, Qingdao, Tianjin, Chongqing, Nanjing, Suzhou, Xinjiang, as well as Asia, North America, Europe, and the Middle East, providing customers with timely technical support and reliable after-sales service.

(Note: The company was previously known as Shanghai Tongren General Equipment Manufacturing Co., Ltd.)



Yingfei Vision:

To become a trusted professional brand in air transportation, control, and regulation.

Yingfei Mission:

To provide reliable and convenient air transportation, control, and regulation services.

Yingfei Dream:

Exceptional customer experience, a happy life for employees' families, and an entrepreneurial platform for partners.

Honors & Qualifications:

- National-level "Little Giant" Enterprise (Specialized and Innovative SME)
- National High-Tech Enterprise
- Shanghai Famous Trademark: INFINAIR®
- Shanghai Brand Product
- Shanghai Technology-Based SME
- Shanghai "Specialized and Innovative" Enterprise
- Shanghai Enterprise Technology Center
- SGS ISO9001, ISO14001, ISO45001 Management System Certifications

Haimen Production Base (Wholly-owned Subsidiary):

National High-Tech Enterprise



Impeller Features

✓ Novel design overturning the tradition

- The first centrifugal wheel in China for aluminum roof fans
- With innovation based on advanced passage through constraint idea from abroad
- Leading efficiency and noise advantage
- Highly efficient area width, no overload

✓ Internationally advanced process is adopted for better conformity with characteristics of the flow field

- Flow passage components are spin formed, in replacement of the traditional process
- The blade is formed at one time by pressing, having ensured the processing quality
- Special machine, mould and tooling design have ensured the molding and positioning precision

✓ Wind-Surfer™ wheel comes to its 5G Wind-surfer backward inclined centrifugal wheel

- Continuous improvement, constant promotion
- Higher energy efficiency, lower energy waste
- Less noise, more quietness



✓ Whole aluminum alloy, light weight and inborn explosion-proof

- Metal texture promotes the taste
- Light weight accounting for only 1/3 of that of the traditional
- Having reached the highest explosion-proof class SPACK A

✓ Carefully selected materials applicable to fire-fighting and coastal occasions

- The strength is designed to be 200% of the highest rotating speed, and may fully satisfy the fire-fighting requirement
- The material is resistant to neutral salt spray, and is widely used in the coastal regions
- The rigorous experimental tests win trustworthiness

Product Features

✓ Independent motor chamber:
extra long lifetime

- Drive located in an independent chamber, contamination contact free
- Suitable for lubrication grease, kitchen grease, dust and VOC exhaust
- Stable performance and lifetime longer than 10 years

✓ Blade falling resistant, prevent condensation falling into room

- Even if blades break accidentally, blade pieces shall not fall into inside room without safety guard installation.
- Condensation will flow along blade to the outside instead of inside , available in coastal and humid area.

✓ Patented in design, practical & artistic

- Elegant profile design: balanced proportion and sophisticated craftwork.
- Silver white metallic lustre casing: harmonious with different building colors
- Modernize buildings with enhanced taste



✓ Light: suitable for steel structure roofdeck

- Housing and wheel: aluminum alloy material
- Effectively reduce roof load : investment on steel structure is saved

✓ Patented positive cooling technology

- Auxiliary blades suck in air: negative pressure in drive chamber
- Fresh cool air continuously pushing in to drive chamber: cool the motor bearing
- Motor and bearing life extended effectively

✓ Widely applied to needs

- Explosion preration exhaust, all aluminum construction: Spark A
- Smoke removal application
- Coastal high-salt condensation

INFINAIR Research Institute Testing on RTC

Wind resistant test photo



- Strong wind resistant
The experiment certifies that RTC fan can keep stable performance and structural strength under 33.9 m/s wind speed (The meteorological industry standard QX/T 51-2007 is 12 level typhoon) .

rainstorm resistant photo



- Rainstorm resistant
The experiment certifies that even under extreme conditions that artificial rainfall is 156 mm/h (class: extraordinary rainfall) RTC fan performs excellently without water leakage or deformation whether the fan starts or shut downs.

Aluminum wheel test comparison photo



- Salt spray corrosion resistant
The experiment in accordance with GB/T10125-1997 standards (salt spray test method) certifies that RTC fan doesn't rust after neutral salt spray corrosion tests and RTC fan can bear salt spray corrosion and be used under certain environments such as marine and island. Test result is as shown below:

smoke removal test photo



- Smoke removal test
The company certifies that it has passed the certification by National Fire Control and Supervision Center. RTC fan can completely meet requirements of smoke removal fan, which can continuously work under temperature of 280°C for 30 minutes .

Accessories & Options

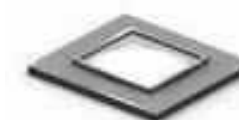
- Gravity back-draft damper

The damper whose aluminum blades are mutually coordinated can stop the back flow of external air .



- Curb Adapter

The curb adapter is ordered when roof curb is already made or the size is fixed to match RTC fan. The adapter can be converted from big to small or small to big. However, existing roof curb size must be required in the order.



- Fire resistant damper (for smoke removal)

The regulator is normally open. Once the temperature reaches 280°C, the valve could automatically close and the signal will be sent out to the control system at the same time. Except for fire resisting, it has the function of adjusting air volume.



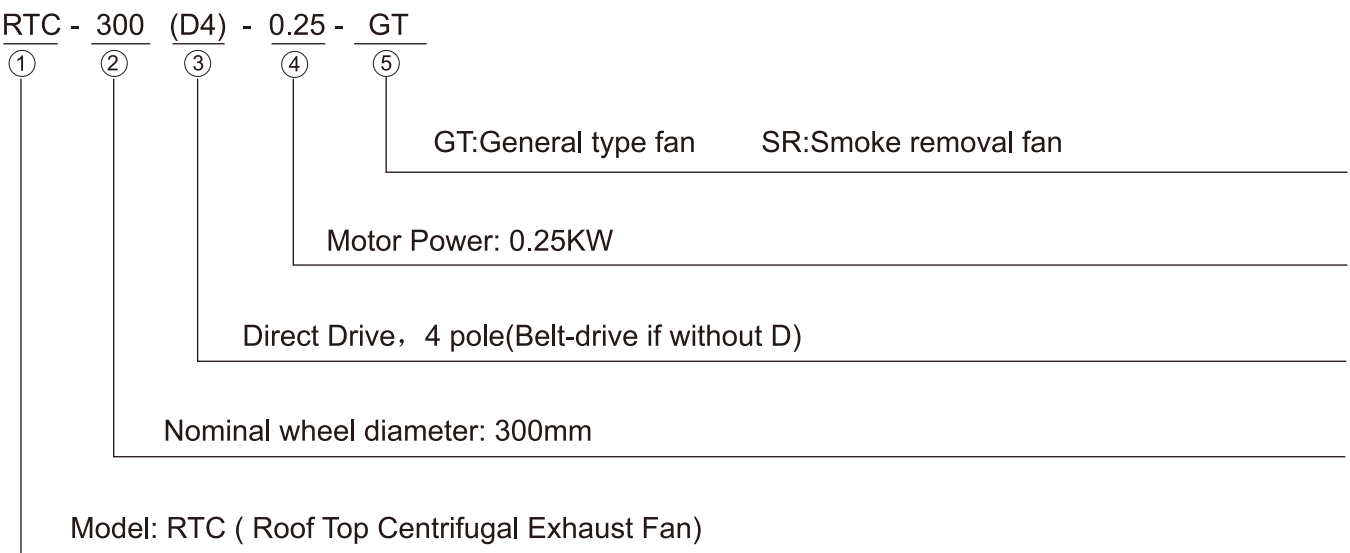
- Rubber isolation pad (not for smoke removal)

The rubber isolation pad is located between curb and curb cap, which is waterproof and sealed and can effectively reduce vibration, lower noise and extend performance life of fan.

- Temperature control auto switch

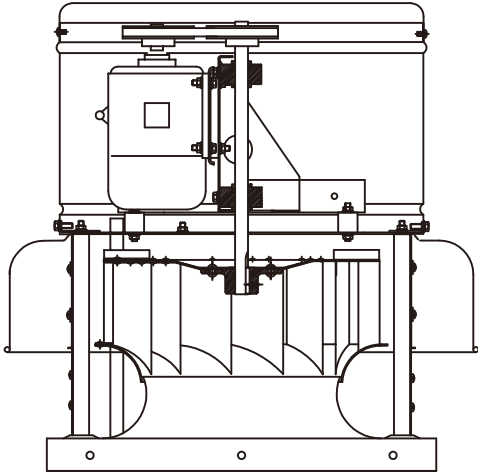
The switch could be automatically controlled to save energy when the ambient temperature reaches the setting value.

Nomenclature (o Model Code Nomenclature)



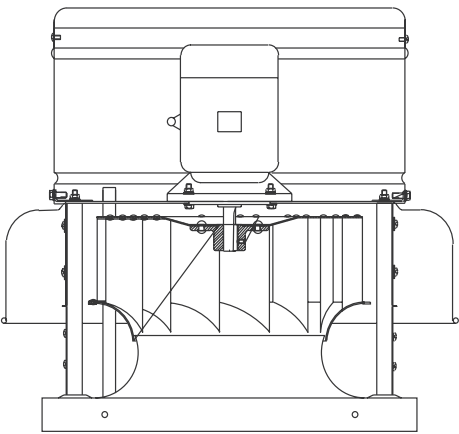
Note: General type and smoke removal type have the same volume and pressure.

RTC Outline Drawing



(Belt - drive)

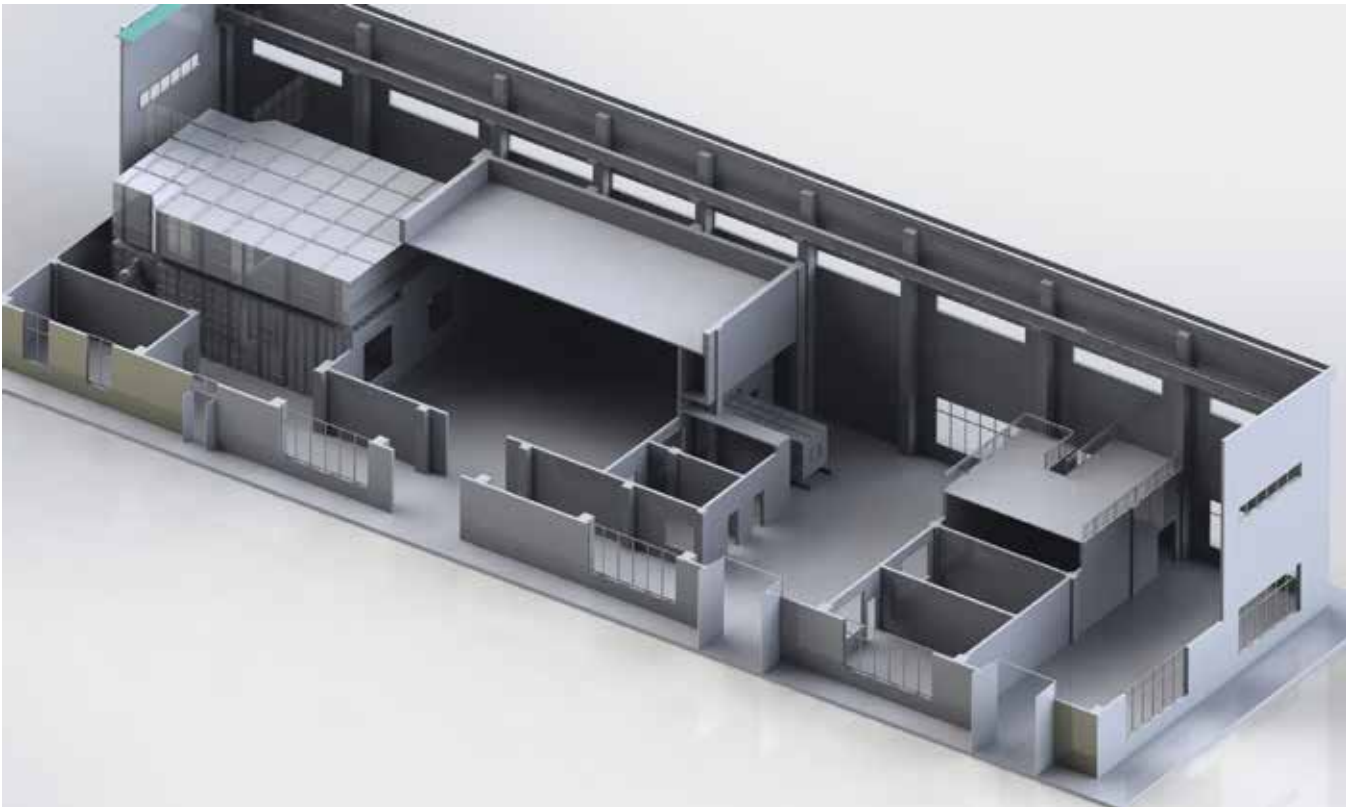
RTC	(Belt)
smoke removal	Optional
explosion proof	No the function
wheel epoxy coated	Optional
fan epoxy coated	Optional



(Direct - drive)

RTC	(Direct - drive)
smoke removal	Optional
explosion proof	Optional
wheel epoxy coated	Optional
fan epoxy coated	Optional

INFINAIR Laboratory.



Established in 2006, the INFINAIR Laboratory underwent a major expansion in 2013 with an investment of over 13 million RMB. Today, it features four operational wind chambers, including two ultra-large chambers with a capacity of 200,000 m³/h, one medium chamber of 30,000 m³/h, and one high-precision micro chamber of 7,000 m³/h. The facility also includes a large reverberation room, a semi-anechoic chamber, a high-temperature lab, and an extra-large vibration testing platform, making it a world-class, industry-leading integrated testing and inspection center.

Garantía de Precisión:
The INFINAIR Aerodynamics and Acoustics Laboratory ensures accuracy through the following measures:

Standard Compliance: Design, construction, and testing operations strictly follow AMCA 210, AMCA 300, ISO 5801 (GB/T 1236), ISO 13350 (GB/T 19843), and ISO 5802 (GB/T 10178) standards.

Advanced Methodology: Aerodynamic performance testing utilizes the advanced multi-nozzle method instead of traditional Pitot static tubes to achieve higher precision in airflow measurement.

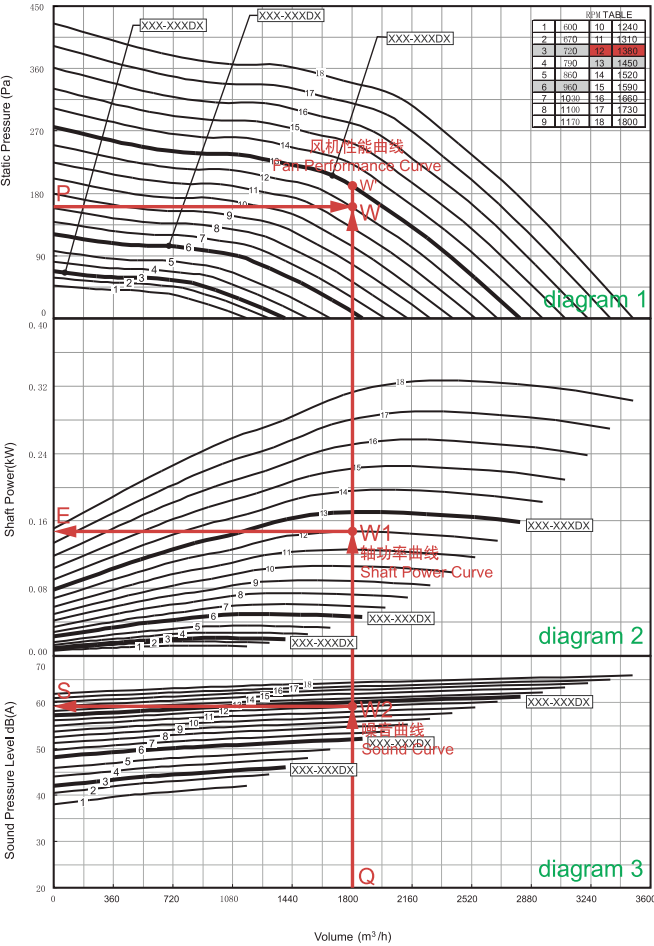
State-of-the-Art Equipment: Extensive use of the latest high-precision testing instruments and measuring devices.

Rigorous Calibration: Laboratory equipment and measuring tools undergo strict calibration, periodic re-inspection, and self-verification.

Alcance de las Pruebas:
The testing scope of the INFINAIR Laboratory includes: aerodynamic performance, acoustic testing, vibration testing, high-temperature fire safety testing, and jet fan thrust measurement. Additionally, the lab performs motor energy efficiency testing and physical/chemical analysis.

Catalogue introduction

- Each fan performance is symbolized by a group of curves for different RPM.
 - The bolded curves indicate the fan is direct drive which means the wheel is installed on the motor shaft directly.
 - All direct drive models shall have a suffix letter D followed by motor pole number (which is already marked on the drawing). The attached table shows motor RPM at different number of poles.
 - The not-bolded curves means the fan is belt drive. The belt drive models establish different RPM by choosing different diameter of the 2 pulleys, while the motor is 2/4/6 pole.
 - Shaft Power Curve displays the fan actual power consumption.
- The sound pressure level curve indicated the noise level at 1.5 meter distance.



Example: 1800M³/h, 160Pa Static Pressure

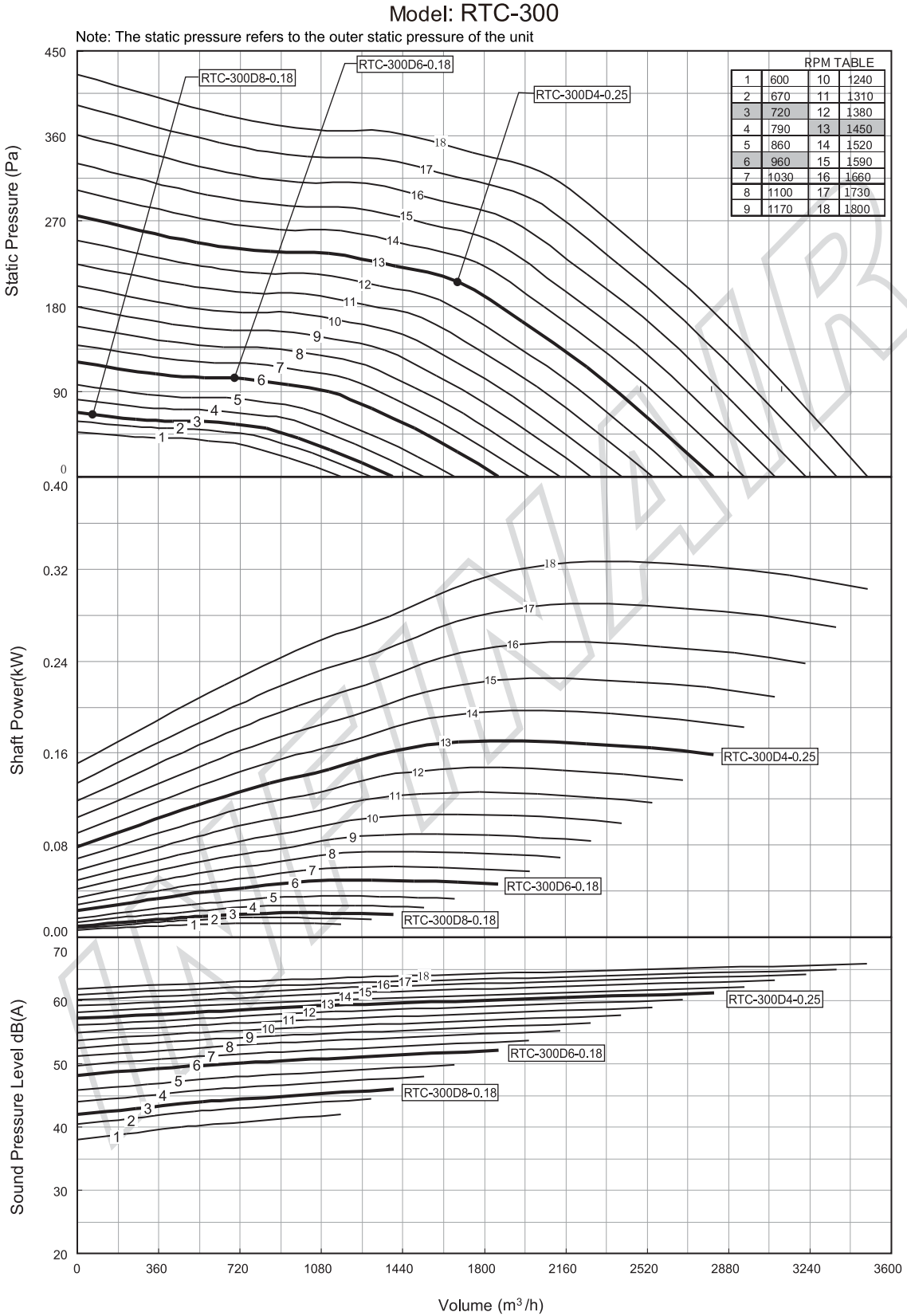
Step 1: From given volume (Point Q: 1800M³/H) draw a vertical line upwards, from given static pressure (Point P: 160Pa) draw a horizontal line to the right, the intersection point W is the working point. Find a fan curve close to the point, which would be curve No.12. As highlighted in the RPM table, it is 1380RPM.

Step 2: The intersection point between the vertical line and the curve No. 12 in diagram 2 is marked as point W1. Draw a horizontal line from point W1 to the left coordinate, which makes point E. The point E (about 0.15kW) is the shaft power. According to the shaft power, a 0.25kW motor shall be equipped.

Step 3: The intersection point between the vertical line and the curve No. 12 in diagram 3 is marked as point W2. Draw a horizontal line from point W2 to the left coordinate, which makes point S (about 59dB(A)). It is the fan sound pressure level.

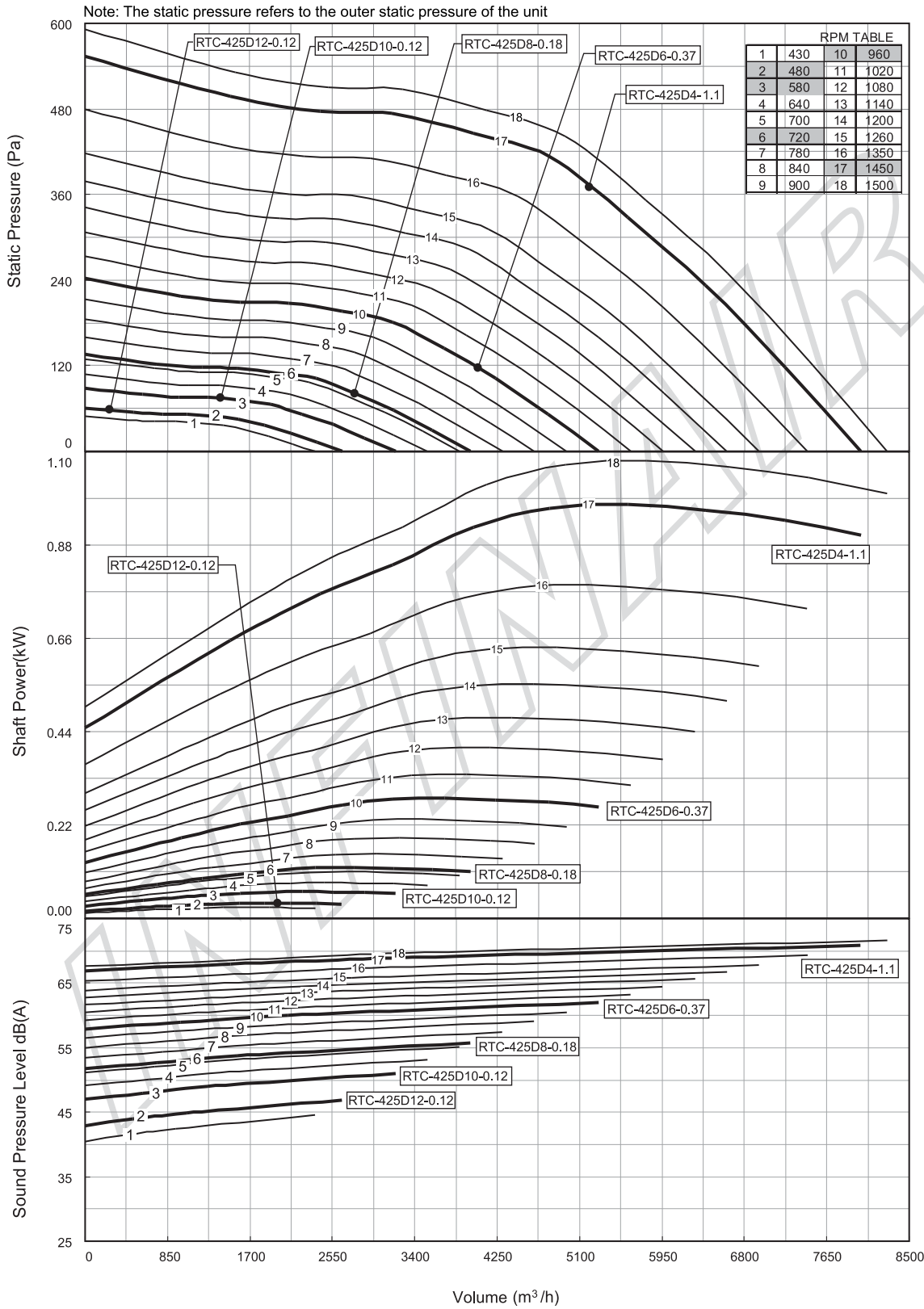
Step 4: According to above steps, the primary model selection would be RTC-300-0.25, belt drive, and factory set to 1380RPM. If lower shaft power or noise is expected, you may compare with another larger fan. However a larger fan would increase primary investment.

Step 5: Furthermore, if customer needs 1800M³/H at 180Pa static pressure, you would find point W' is close to curve No.13(bolded, indicates 1450 RPM 4 pole direct drive). Then a direct drive fan (RTC-300D4-0.25) can be selected which would be more economic.



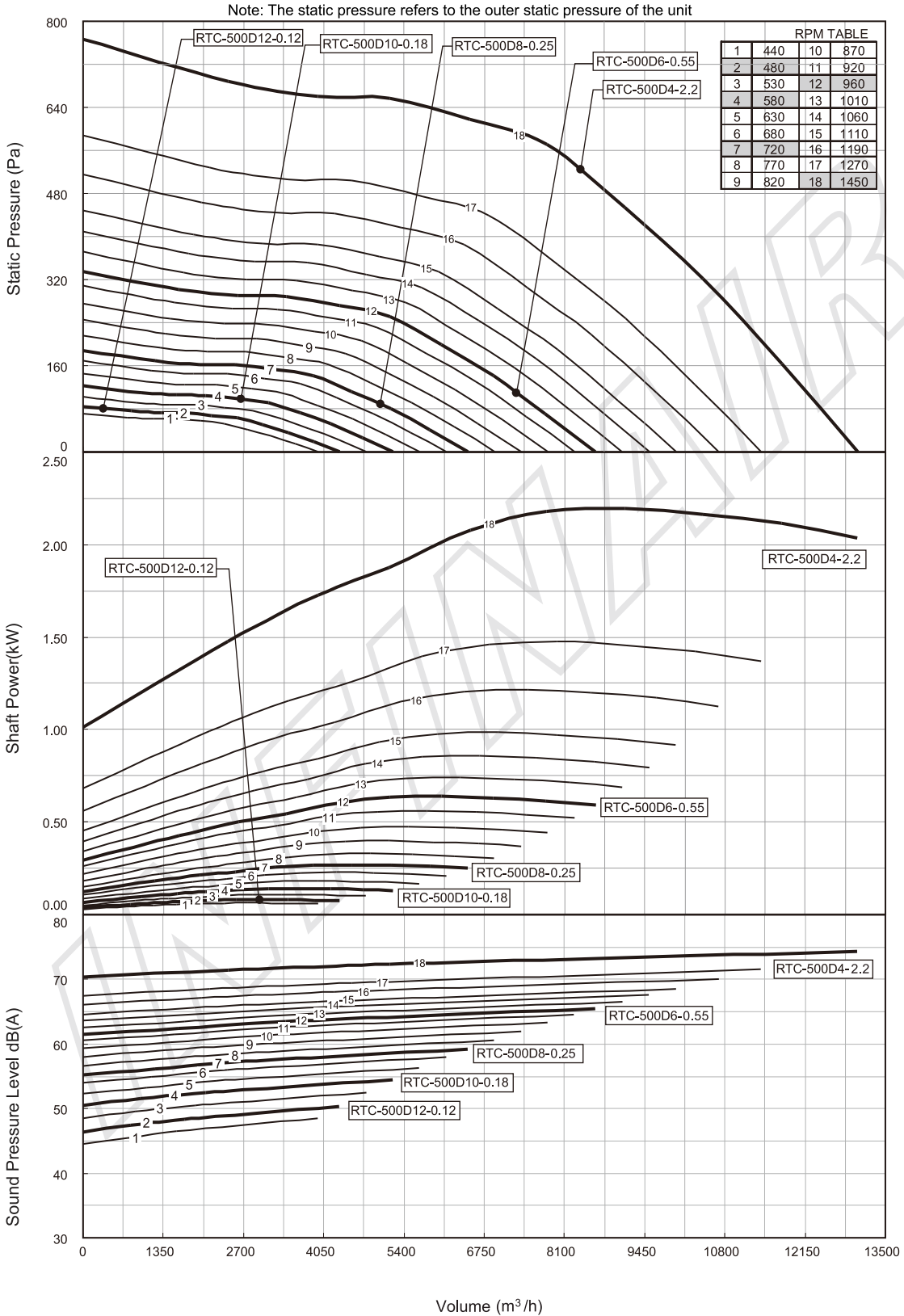
Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International

Model: RTC-425



Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

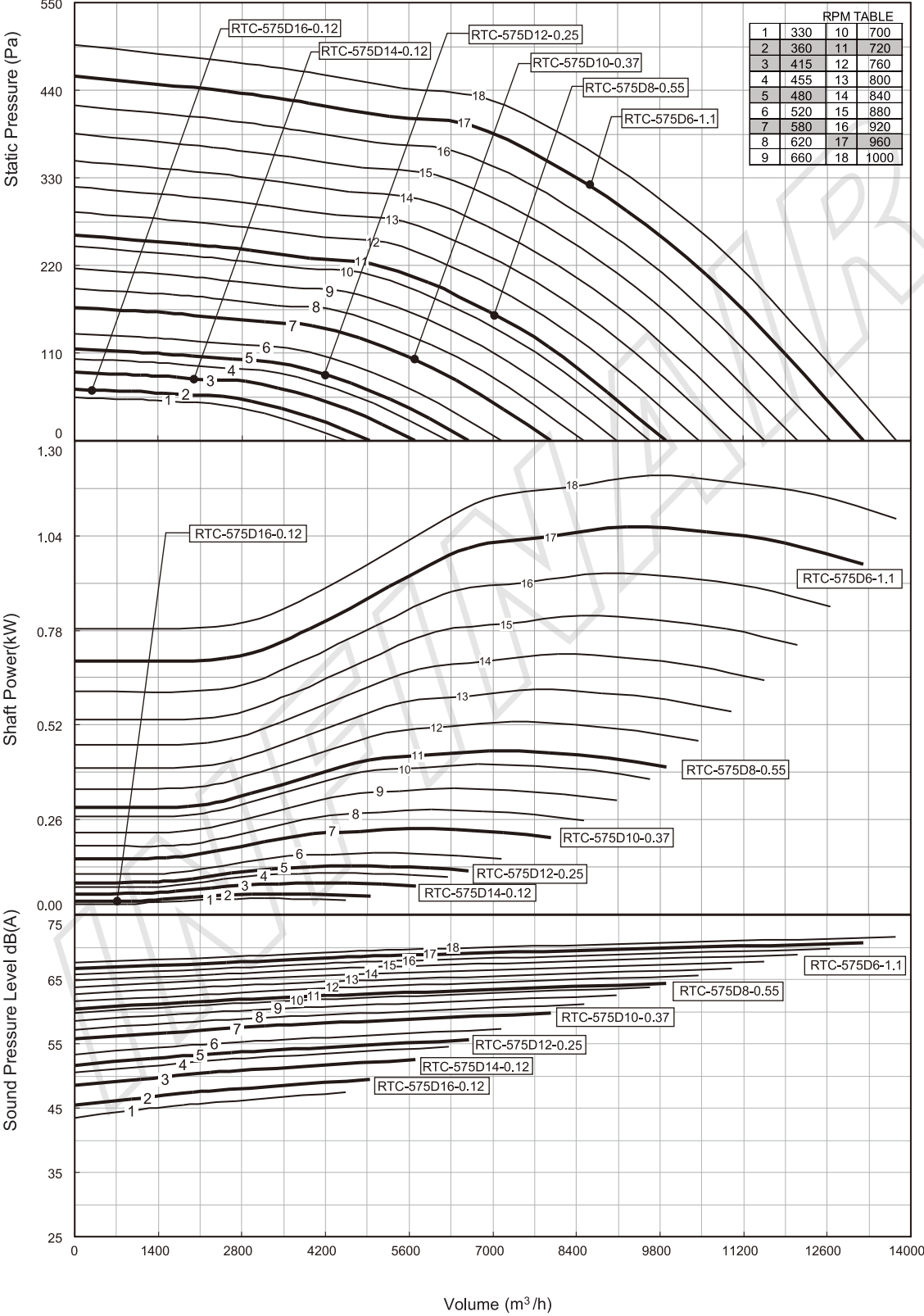
Model: RTC-500



Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: RTC-575

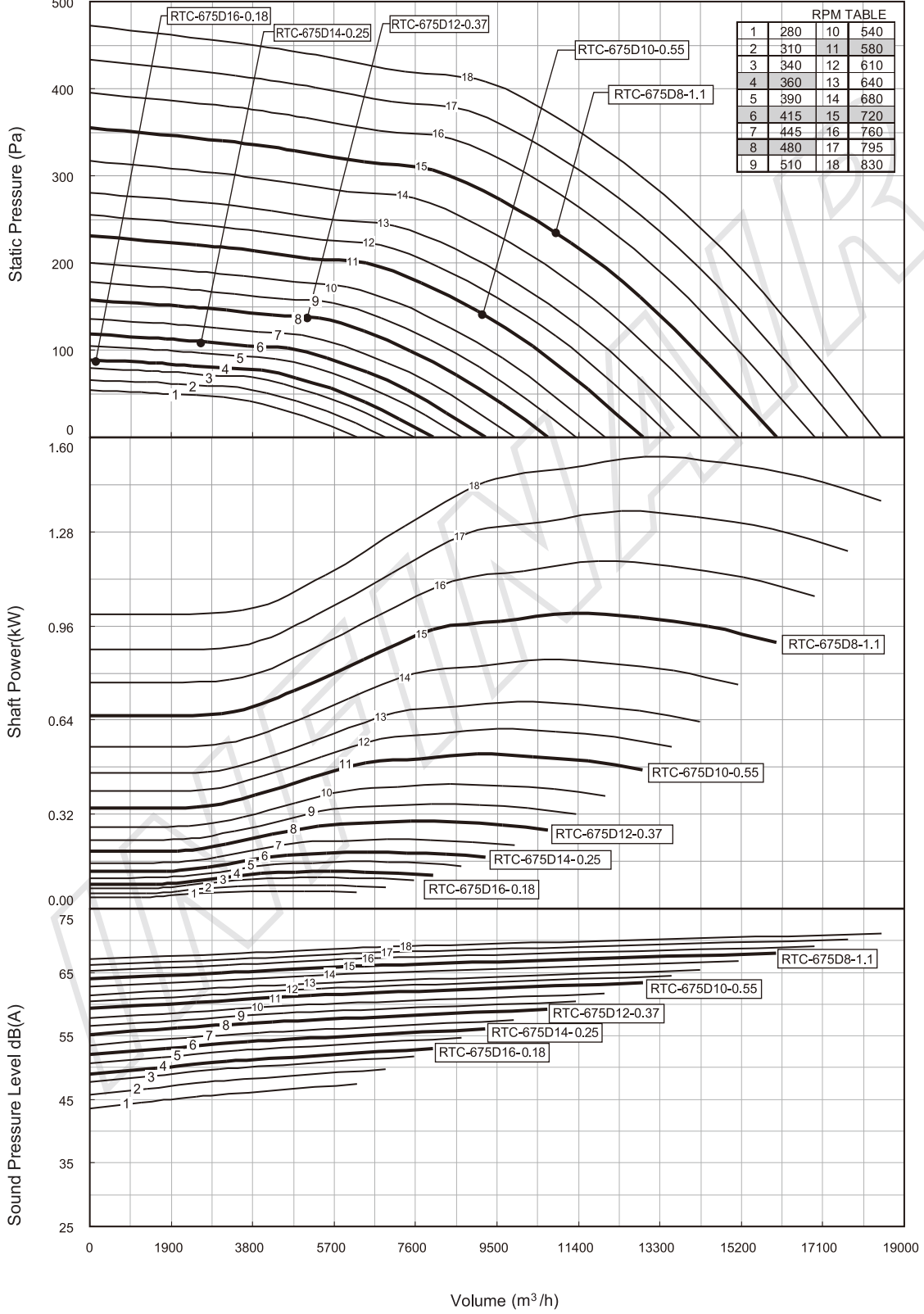
Note: The static pressure refers to the outer static pressure of the unit



Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

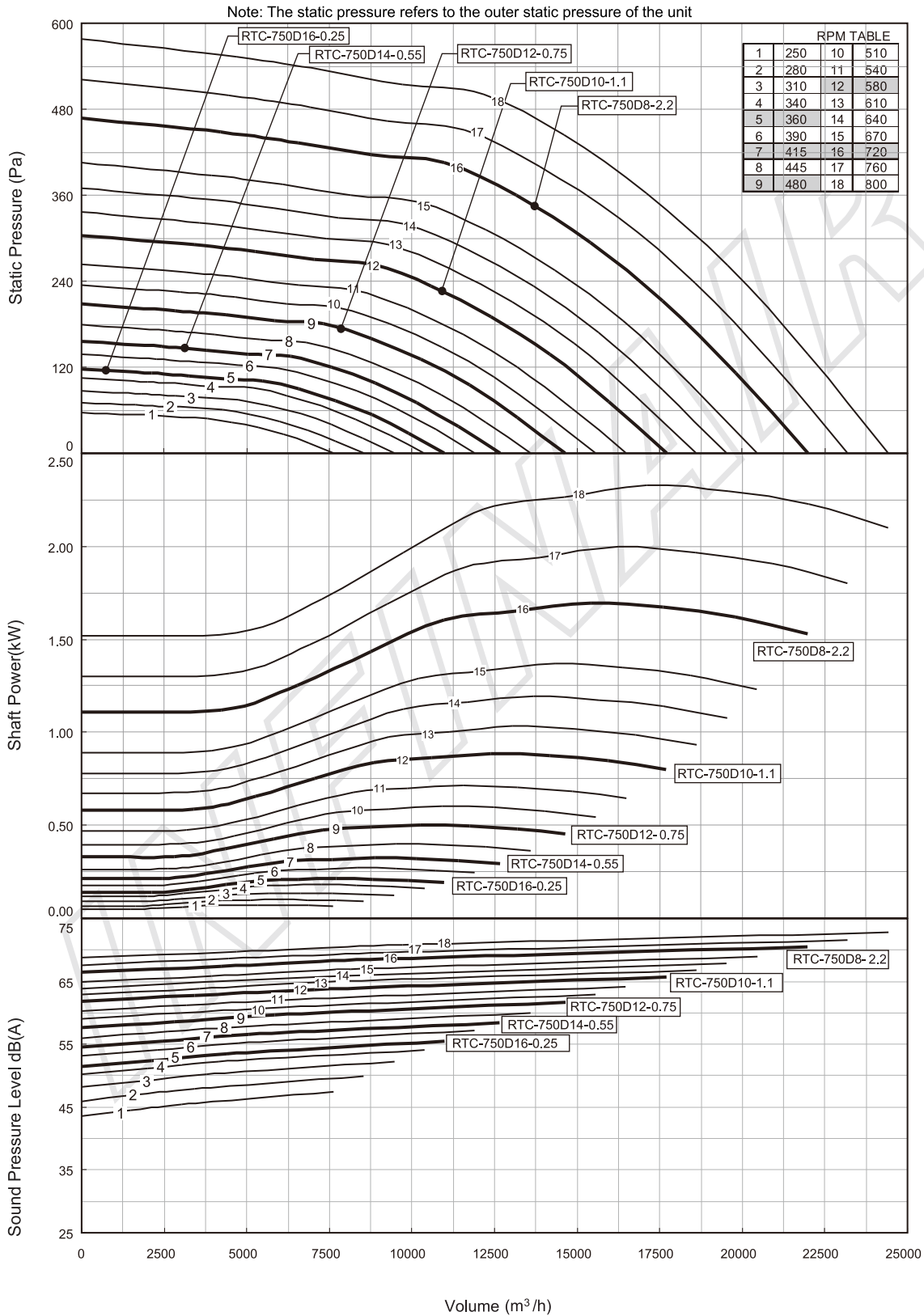
Model: RTC-675

Note: The static pressure refers to the outer static pressure of the unit



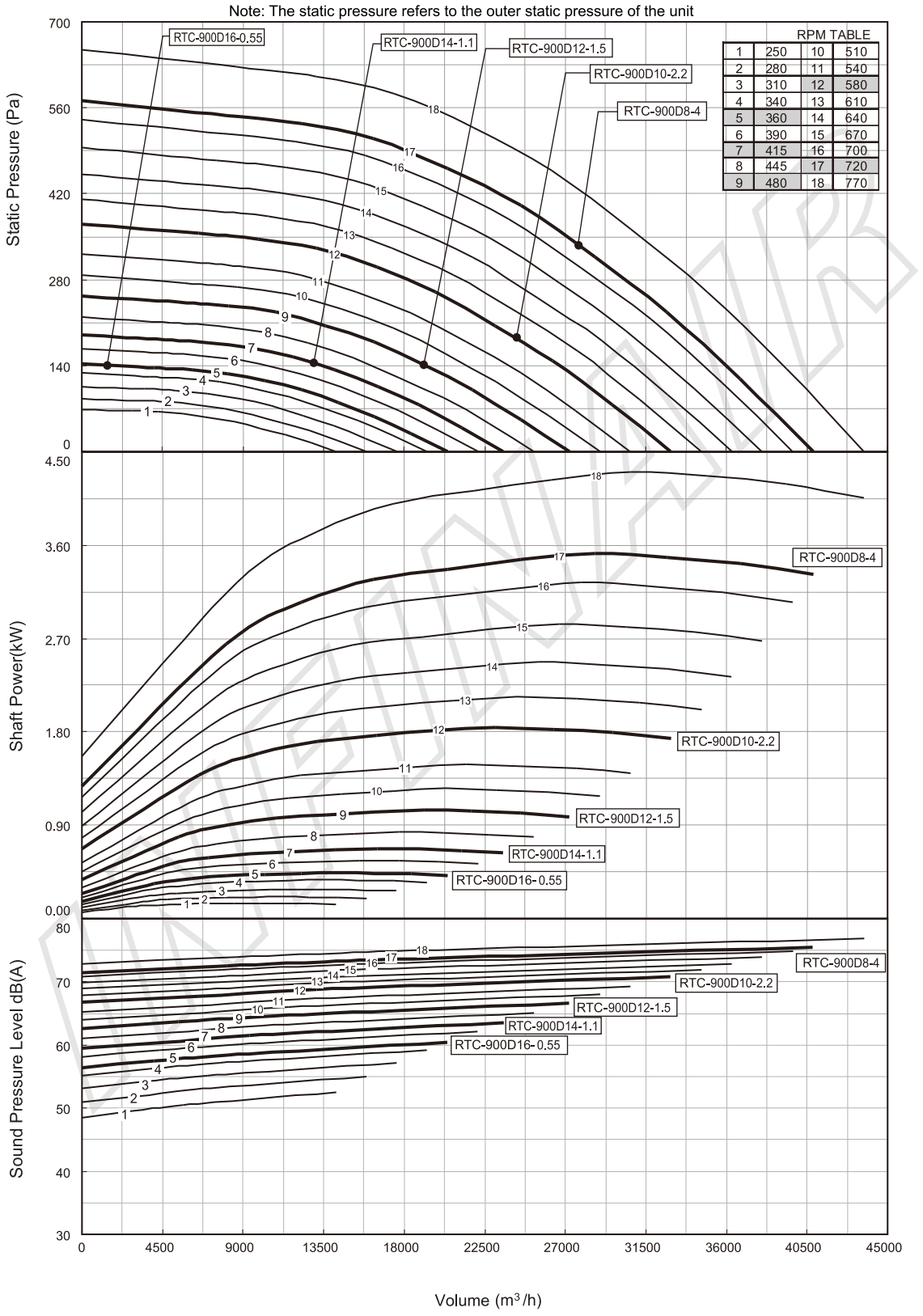
Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: RTC-750

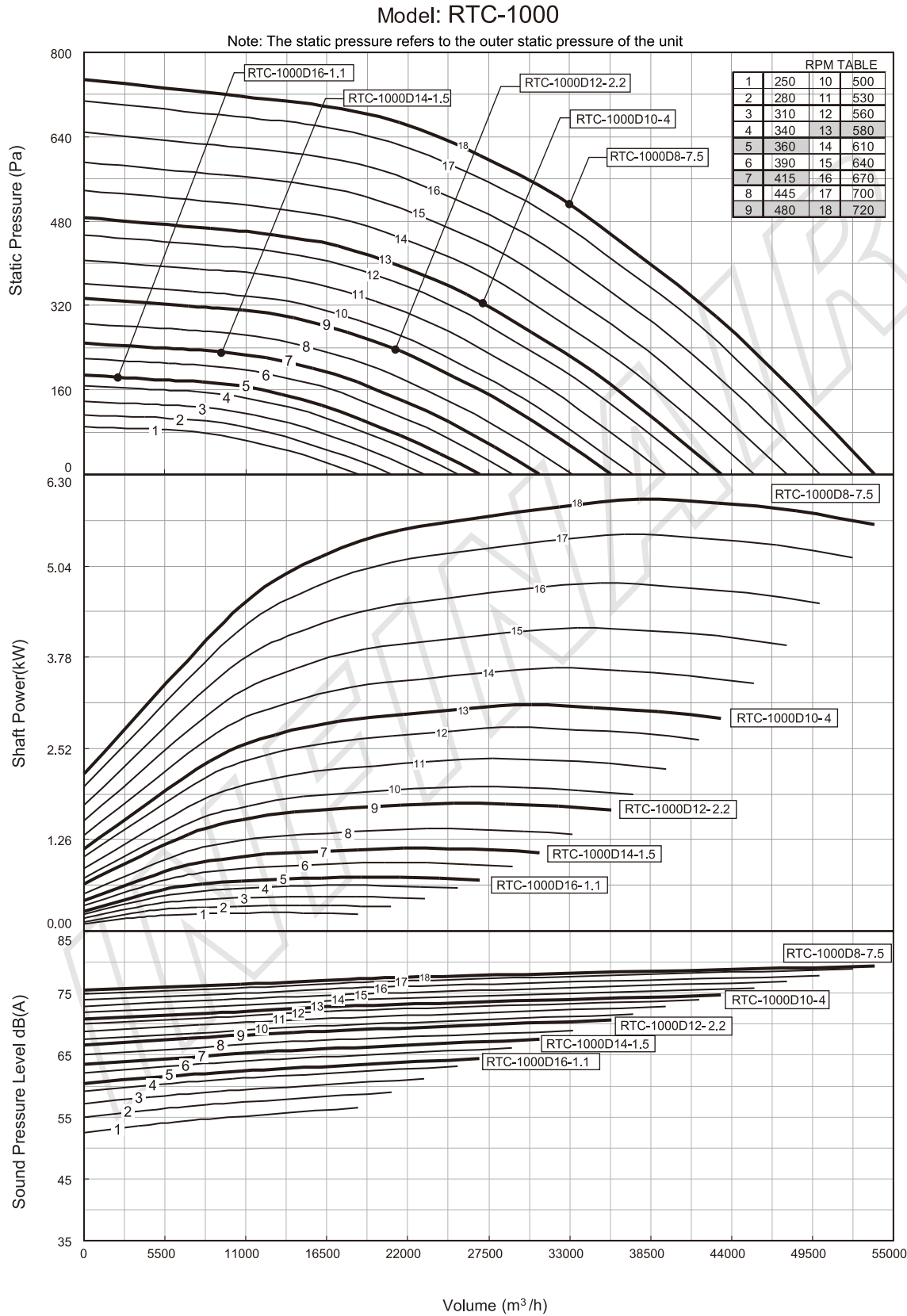


Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Model: RTC-900

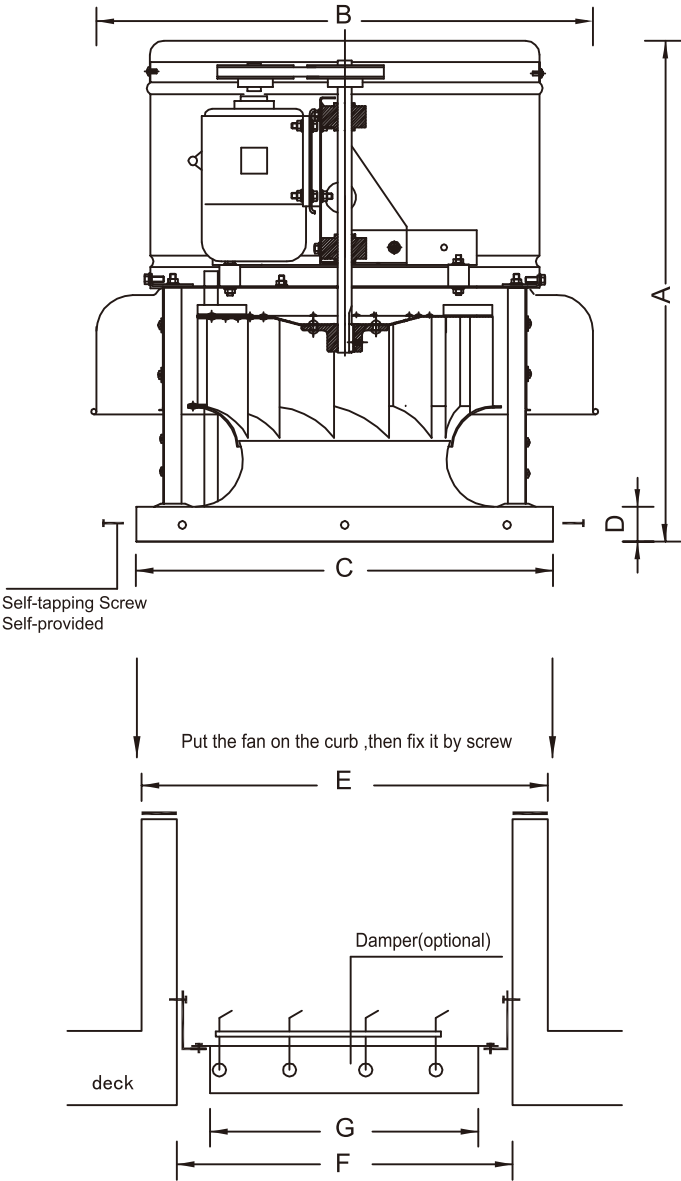


Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.



Performance certified is for installation type A - free inlet, free outlet. Power rating (kW) includes transmission losses. Speed (RPM or RPS) shown is nominal. Performance is based on actual speed of test. Values shown are for inlet LwA sound power levels for Installation Type A: Free inlet, free outlet. The sound power level ratings shown are in decibels, referred to as 10⁻¹² watts, calculated per AMCA International Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Ratings do not include the effects of duct end correction. dB(A) A-weighted sound pressure level is based on 11.5 dB sound attenuation per octave band at 1.5 m. Note that dB(A) levels are not licensed by AMCA International.

Fan size and weight



- Installation instruction
1. The roof curb height shall be defined by design engineer. We suggest the height shall be 300mm-500mm according to local rainfall.
 2. Isolation pads, steel angels and screws for roof fans in this drawing are not included in the material lists of standard products by "INFINAIR."
 3. The rubber isolation pads should be chosen according to the maximum weight of the fan they can bear without any deformation. Typically, the thickness of pad is 5-8mm.

The below dimensions apply to all RTC types.

Model	A(mm)	B(mm)	C(mm)	D(mm)	* weight (kg)
RTC-300	690 _(max)	595	500	50	21
RTC-425	855 _(max)	748	600	50	30
RTC-500	990 _(max)	842	750	70	39
RTC-575	990 _(max)	944	750	70	46
RTC-675	1100 _(max)	1087	900	53	67
RTC-750	1185 _(max)	1225	900	53	71
RTC-900	1390 _(max)	1445	1100	70	118
RTC-1000	1440 _(max)	1555	1200	70	141

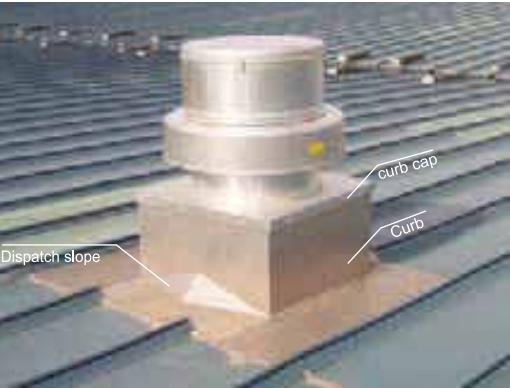
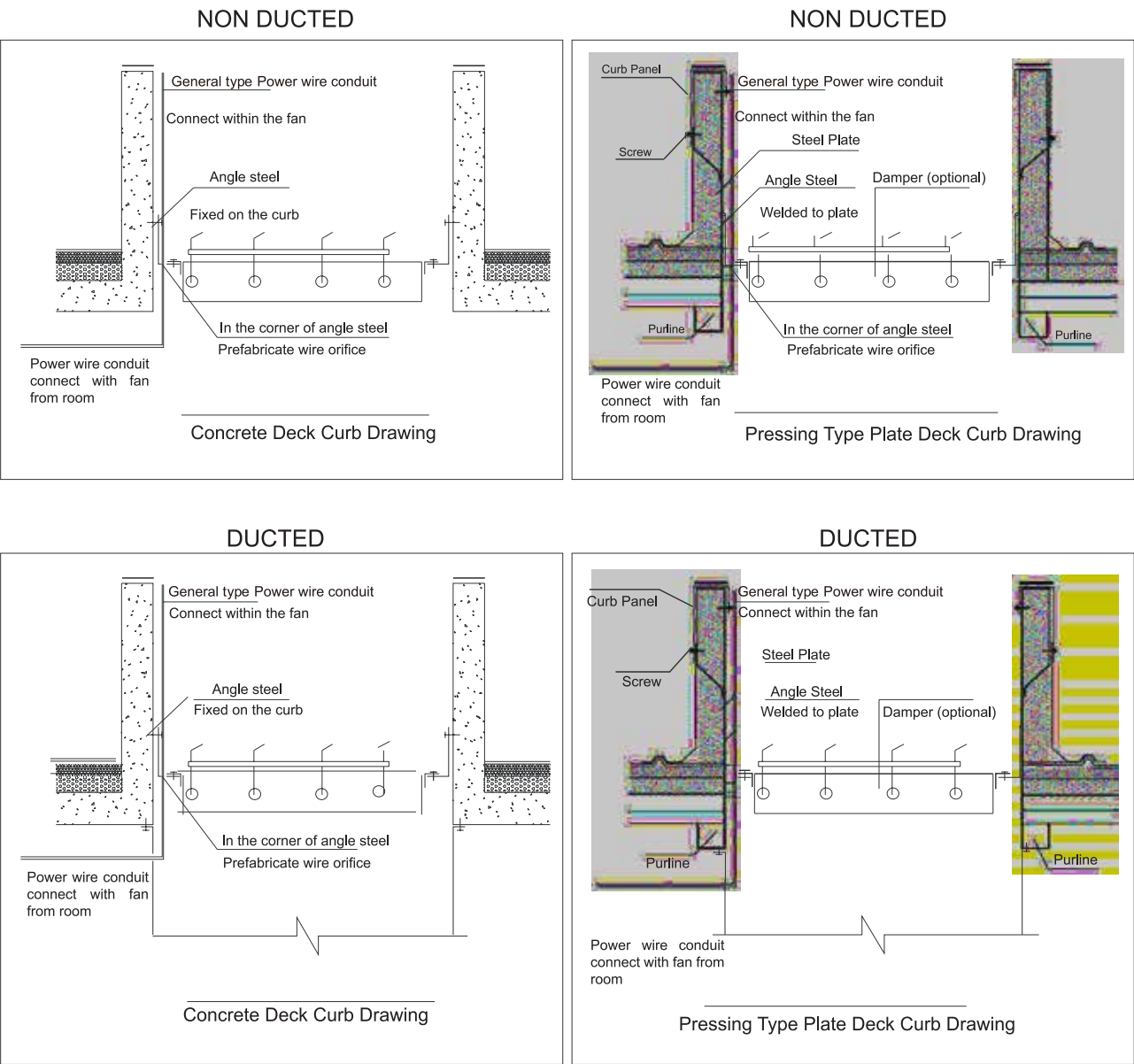
* The weight in the above table does not include that of motor. Refer motor weight to the table below.

(kW) (poles)	Motor Weigh (kg)						
	2P	4P	6P	8P	10P	12P	14P 16P
0.09	5.5	5		10			
0.12	5.5	6		10	11	13	15 18
0.18	14	13.5	14	16	10	15	17 21
0.25	14.5	14	14.5	17	14	16	20 23
0.37	15	14.5	16	24	17	18	21 30
0.55	15.5	17	17	28	20	21	30 37
0.75	16	18	23	33	23	24	36 41
1.1	17	22	25	38	30	30	42 48
1.5	22	27	33	45	38	42	35 58
2.2	25	34	45	63	39	45	52 62
3	33	38	63	79	40	50	62 67
4	45	43	73	110	56	60	68 70
5.5	64	68	84	121			
7.5	70	81	121	147			
11	118	124	146	182			

The below dimensions apply to all RTC types.

Model	(mm) Curb Edge Size	(mm) Roof Opening Size	(mm) Damper Size	(mm) Fire Resistant Damper Size
RTC-300	490	370	300x300	420x420
RTC-425	590	470	400x400	520x520
RTC-500	740	620	550x550	670x670
RTC-575	740	620	550x550	670x670
RTC-675	890	730	650x650	780x780
RTC-750	890	730	650x650	780x780
RTC-900	1090	930	800x800	980x980
RTC-1000	1190	1030	900x900	1080x1080

Roof Curb Fabrication Detail



Used on the slope for water diversion, protect curb from direct rain damage.

Installation

Fan & roof installation structure dimension

Please see page 17 for fan size and opening hole size on the roof. The opening hole size on the roof shall be provided to the contractor at early stage when the roof is under construction.

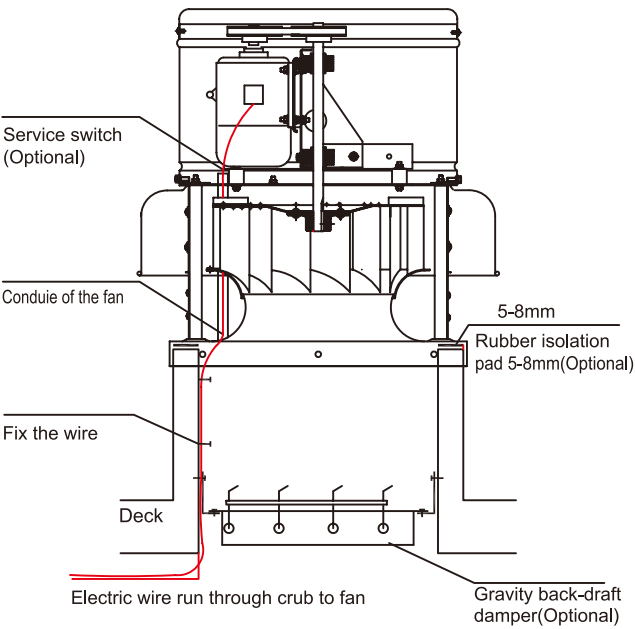


Figure 1: RTC-GT non smoke removal fan installation drawing

Roof curb fabrication

A.
Roof curb is a kind of structure on the roof, that is, The contractor is the only party who is responsible for the fabrication and procedure of the roof curb, figure 1 and figure 2 are for reference only. The thickness of curb wall shall be different according to the model. The thickness shall be between 60-80mm.

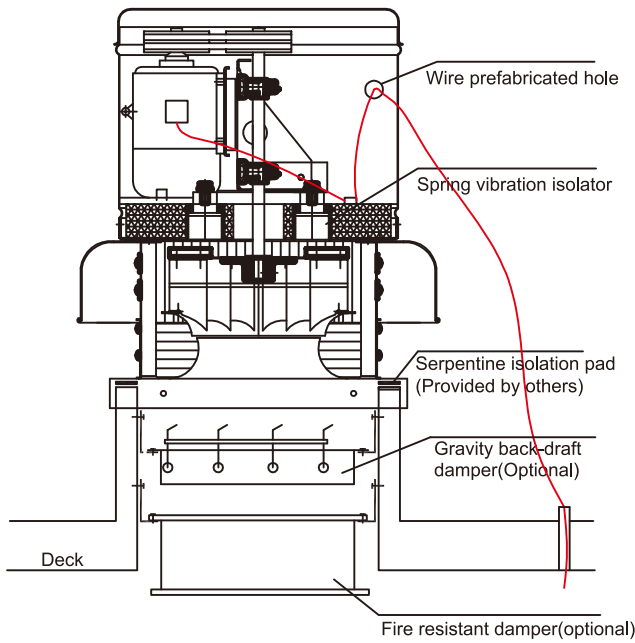


Figure 2: RTC-SR smoke removal fan installation drawing

B.
As to the metal where the fan contacts the curb in the top, a linear rubber vibration isolation pad (smoke removal type needs serpentine isolation pad) shall be applied and also acts as seal. The thickness of the pad shall be decided according to the thickness if it still maintains proper elasticity after fan is seated. The pad could be cut by typical carpet type isolation pads from market and shall be provided by contractors.

How to mount the fan

Put the fan curb cap on the curb, and fix it at all four sides by self-tapping screw as shown by figure 1 and figure 2. The fan must be rept level.

Power supply wiring

As general and explosion proof exhaust fan, wiring starts inside the curb and is connected with motor through the tube provided by fan as thown by figure 1. As smoke removal fan, wiring starts on the roof and is connected with motor through provided hole in motor chamber as shown by figure 2.

The rotation must be checked by connecting the electric power strictly according to the direction mark on the machine after the wiring is done. If reverse, inter-change any 2 of the 3 phase lines. Fan reverse rotation is forbidden.

Product Specifications

Section 1: Quality Standards

Centrifugal roof exhaust fans shall be tested and certified in accordance with AMCA Standard 210 &300. Each fan shall bear AMCA Sound & Air Performance Seal.

Section 2: Fan Type

Fan shall be rooftop centrifugal exhaust type with aluminum backward inclined centrifugal wheel. The inlet Venturi shall have round curved section to smoothly transit the air to the wheel cone. The wheel shall be statically and dynamically balanced to AMCA 204.

Section 3: Fan material

The fan housing, wheel and curb shall be produced by aluminum alloy. And the exterior color of the fan shall be silver white to be harmony with the building.

Section 4: Drive (Apply to belt drive model only)

Shaft: fan shaft shall be heat treated through soaking furnace to reach the hardness level of HB250, and the surface shall be hard film corrosion treated. The fan shaft shall be balanced together with the wheel. And the shaft design speed shall at least exceed 25% of the maximum fan operation speed.

Pulleys: Fan pulleys shall be sized for a minimum of 150% of driven power. Pulleys shall be of cast iron type. Motor pulleys shall be adjustable for final system balancing. Conical (QD) type bushings shall be equipped for easy removal of the pulleys.

Bearings: Bearings shall be chosen of metallic to avoid direct vibration on motor. High quality motor bearings shall be selected for a minimum (L-10) life in excess of 80,000 hours at maximum cataloged operating speed. Bearing type shall be lubricable pillow block metal ball bearings, permanently sealed.

Drive support: Drive assemblies shall be supported by heavy gauge powder coated steel and mounted on

vibration isolators. The belt tension shall be adjusted through motor support plate, ensuring the fan shaft and motor shaft are always keeping parallel.

Section 5: Motor

Motor shall be carefully matched to the fan load with IP 54 and insulation class F. The motor bearings shall be lubrication-free ball bearing type. Motor and drives shall be mounted on vibration isolators, and out of the air stream to avoid grease or dirt accumulation. Motor chamber shall be fixed through stainless steel clips for easy access.

Section 6: Structure

The hood shall be rigid enough to bear heavy load and protect the fan from leaking of heavy rain or snow melting.

Motor, drive support panel shall use an anti-corrosion treated steel panel. Using the same material as that of the housing is prohibited. The column shall be aluminum stick to make sure the support is stable.

Internal wiring conduit: Fan shall be furnished with a conduit to lead the power supply wiring through the curb to the motor chamber. (Limited to non smoke removal type)

Roof curb caps with mounting holes: the roof curb cap shall have pre-drilled holes at its side by which the fan could be fixed.

Galvanized bird screen: Galvanized bird screen shall be furnished to protect the fan’s discharge from birds when the fan is not running.

Section7: Fire fighting Certification(Only for smoke removal duty)

The fan shall be tested OK in complying with the General Usage Axial Fan technical Specification (China National Standard JB/T 10562-2006). A test report issued by licensed authorities shall be provided. The fan must be tested according to China National Standard XF 211-2009, Fire Fighting Smoke Removal Fan High Temperature Testing Method, running continuously over 30 minutes when the main duct air temperature is 280 degrees centigrade. The high temperature resistance character must be qualified by presenting an official certificate.

Section 8: Fresh air cooling motor

Fresh air shall be drawn into the motor compartment from an area free of discharge contaminants to cool the motor and drive. The fresh air shall be guided into the motor chamber through auxiliary wheel blades to the gap below the motor cover

Section 9: Nameplate

Each fan shall bear a permanently fixed aluminum nameplate clearly containing fan number, product model and serial number. The serial number shall be a unique ID for each fan, so that customers have an easy access to finding out the records of used parts.

Section 10: Acceptable manufacturers

INFINAIR® products or equivalents which are based on **INFINAIR®** RTC Fan are acceptable.

INFINAIR Intelligent Ventilation Technology

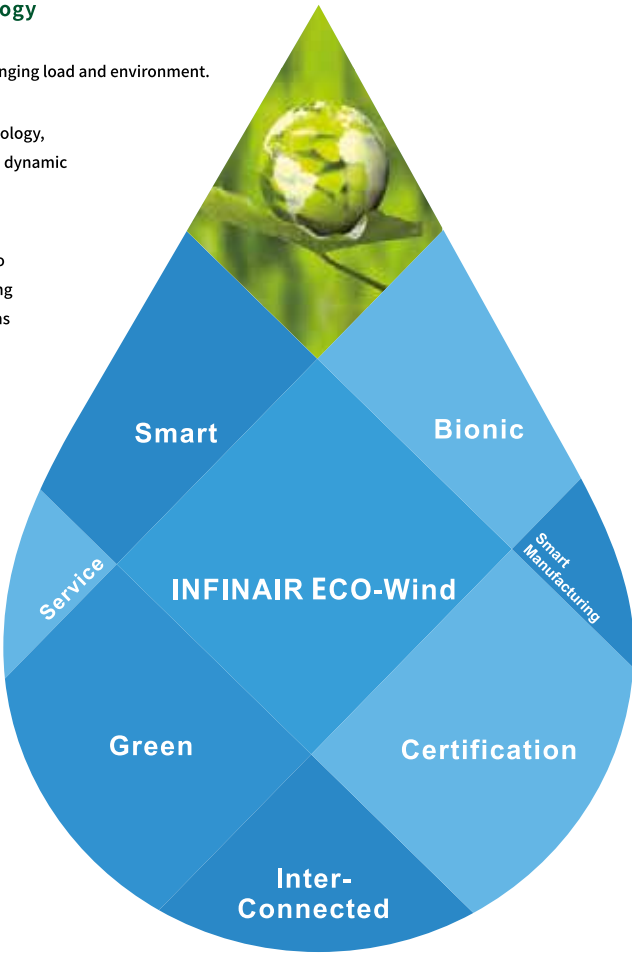
- Smart Needs Identification
Dynamically adjusting the operation target to the changing load and environment.
- Intelligent Adjustment
Utilizing variable frequency or EC smart control technology, performance is finely tuned to actual needs under the dynamic control of intelligent speed regulation software.
- Intelligent Real-time Information
Employing a variety of communication technologies to connect to the Internet or local area networks, enabling intelligent communication with central control systems and mobile devices.
- Intelligent Detection System
Reliable sensors can detect early symptoms and notify the user, ensuring stable operation

Green Smart Simulation Technology

- CFD Simulation & Analysis
Simulated calculations are performed for the performance (airflow, air pressure, power consumption, and noise) prediction of the wheel aerodynamic model, enabling the anticipation of performance without the need to construct physical prototypes, thus facilitating rapid optimization.
- Finite Element Analysis Technology
To analyze and provide accurate prediction of how material is likely to respond when subjected to structural and/or thermal loads.

Certifications and Tests

- Most of the products are certificated by: CCCf, AMCA, TUV, CE, ATEX, UL, RoHS and ErP2015
- Performance and Reliability Tests:
Air flow, air pressure, power, sound level, temperature durability, salt spray and water proof test, etc



Interconnected

- Matrix Connection
- Central Connection
- Terminal Connection

INFINAIR' s Bionic Technology

- INFINAIR' s Bionic Energy Conservation
Why can nautilus float and swim effortlessly?
How do birds soar thousands of miles with extremely low energy consumption?
For owls' silent flight, why are even sensitive mice unaware of it?
Over millions of years of evolution, how have creatures in nature conserved energy for migration or remained silent while hunting prey?
INFINAIR has gained inspiration in the research and development of its products by using the bionic technologies.

INFINAIR' s Intelligent Manufacturing

- Intelligent production process
- Power test, dynamic balancing test and communication test performed on the production line
- Robotic welding technology
- Lean production
- 6Σ system

Eagle Service

- Joint R&D
By collaborating with clients in co-development and implementing quality planning from the outset, we swiftly deliver genuinely effective solutions.
- Tailored Solutions
Our customized services guide you through a progressive clarification process to pinpoint your exact needs precisely.
- Agile Services
With an extensive network of INFINAIR after-sale service engineers, we promptly offer professional services wherever you are.

Eagle Service

