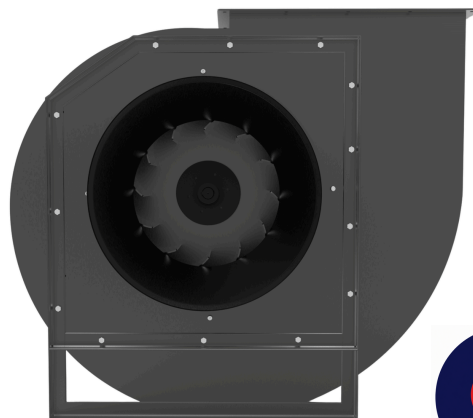


SISW Centrifugal Direct & Belt Driven Fan

VSF Series



F400 SMOKE EXTRACT FANS



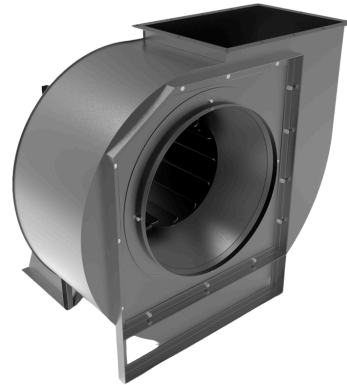
Centrifugal Direct & Belt Driven Fan

VSF - SISW Series

Centrifugal utility and smoke extract fans are designed for reliable ventilation in commercial kitchens, HVAC systems, smoke extraction, and industrial exhaust applications. These fans provide high airflow and high static pressure performance for ducted ventilation systems where efficient and dependable air movement is required. With heavy-duty steel construction and high-efficiency centrifugal impellers, the fans are suitable for continuous operation in demanding commercial and industrial environment

The fans are available in both direct-driven and belt-driven models to suit different installation and performance requirements. Both configurations are capable of handling high-pressure applications, making them suitable for long duct runs, filtration systems, kitchen exhaust, and smoke extract duties. Direct-driven models offer compact construction and reduced maintenance, while belt-driven units provide flexibility for airflow adjustment through pulley selection. The casing and impeller design ensure smooth airflow, low vibration, and reliable operation

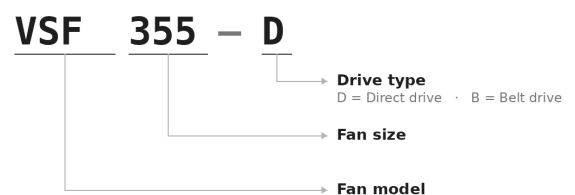
These fans are widely used for kitchen exhaust, smoke extraction, fresh air supply, industrial ventilation, and general HVAC applications. In commercial kitchens, they efficiently remove heat, smoke, grease vapors, and cooking fumes to maintain a cleaner and safer working environment. For smoke extract systems, the fans assist in removing smoke and hot gases during emergency conditions. Their durable construction, reliable performance, and flexible installation make them suitable for a wide range of ventilation projects



Features

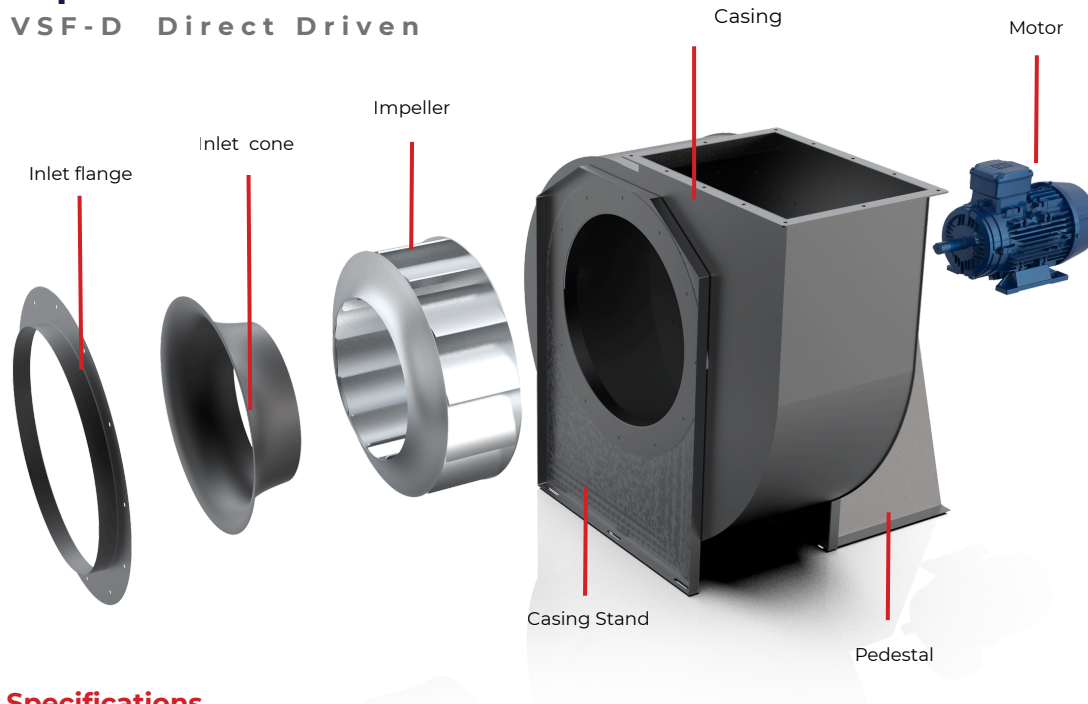
- **High Pressure Performance:** Designed for high airflow and high static pressure applications including kitchen exhaust, smoke extraction, HVAC ventilation, and industrial air handling systems.
- **Aerodynamic Housing Design:** The scroll type casing is designed to provide smooth airflow, stable air performance, and reduced turbulence throughout the operating range.
- **Backward Inclined / Backward Curved High-Efficiency Impeller:** Equipped with high-efficiency backward inclined or backward curved centrifugal impellers dynamically balanced for low vibration, reliable operation, reduced power consumption, and stable airflow performance.
- **Direct Drive and Belt Drive Arrangement:** Available in both direct-driven and belt-driven models to suit different airflow capacities, pressure requirements, and site installation conditions.
- **Heavy Duty Construction:** Manufactured from robust steel construction with high-quality components for reliable operation, extended service life, and minimal maintenance. The housing is protected with a durable powder-coated or epoxy-coated finish for enhanced corrosion resistance and long-lasting performance.

Model number nomenclature.



Exploded View

VSF-D Direct Driven



Specifications

- Drive Type: Direct
- Impeller: Backward curved or inclined with coated steel
- Impeller Diameter: 315mm to 1000mm
- Air Flow Range: 1000 m³/h to 50000 m³/h
- Static Pressure: Up to 2500 Pa
- Material: Steel or GI
- Temperature Rating: 400degC/2hour
- Dynamic Balancing: G2.5, statically and dynamically balanced according to ISO 1940 / AMCA 204
- Motor: Totally Enclosed Fan Cooled (TEFC) - Class F or H, IE2/IE3/IE4
- Manufacturing Standards: ISO 9001 / 14001 / 45001

Additional Accessories

- Companion flanges for inlet and outlet
- Access door, drain plug
- Backdraft damper
- Stainless steel material upon request
- Explosion-proof - ATEX Zone 1 (II 2G Ex h IIB T4 Gb), Zone 21 (II 2D Ex h IIIC T135°C Db), and enhanced protection standards (Ex h IIB+H2 T4 Gb)

CERTIFICATIONS & LISTINGS

AMCA certification



Ecoair Air Conditioning Manufacturing certifies that the VSF model shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

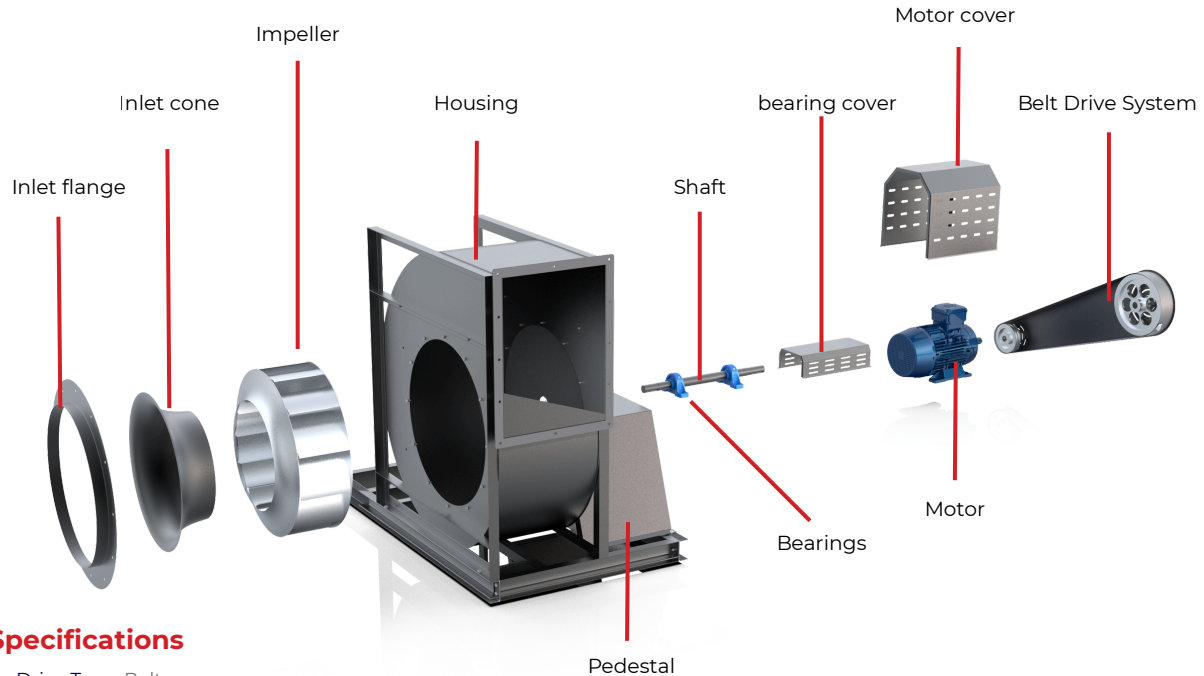
UL Certification



- UL 705 – Power Ventilators (ZACT.E529020)
- UL 705-SC – Power Ventilators for Restaurant Exhaust Appliances (YZHW.MH66268) – Continuous operation at 204°C
- UL 705-SD – Power Ventilators for Smoke-Control Systems (ZAXH.MH67455) – 400°C for 2 hours

Exploded View

VSF-B Belt Driven



Specifications

- Drive Type: Belt
- Impeller: Backward curved or inclined with coated steel
- Impeller Diameter: 315mm to 1000mm
- Air Flow Range: 1000 m³/h to 50000 m³/h
- Static Pressure: Up to 2500 Pa
- Material: Steel or GI
- Temperature Rating: 400degc/2hour
- Dynamic Balancing: G2.5, statically and dynamically balanced according to ISO 1940 / AMCA 204
- Motor: Totally Enclosed Fan Cooled (TEFC) - Class F or H, IE2/IE3/IE4
- Manufacturing Standards: ISO 9001 / 14001 / 45001

Additional Accessories

- Companion flanges for inlet and outlet
- Access door, drain plug
- Backdraft damper
- Stainless steel material upon request
- Explosion-proof - ATEX Zone 1 (II 2G Ex h IIB T4 Gb), Zone 21 (II 2D Ex h IIIC T135°C Db), and enhanced protection standards (Ex h IIB+H2 T4 Gb)

CERTIFICATIONS & LISTINGS

AMCA certification



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UL Certification



- UL 705 – Power Ventilators (ZACT.E529020)
- UL 705-SC – Power Ventilators for Restaurant Exhaust Appliances (YZHW.MH66268) – Continuous operation at 204°C
- UL 705-SD – Power Ventilators for Smoke-Control Systems (ZAXH.MH67455) – 400°C for 2 hours

Fan Performance

V S F 3 5 5

Airflow, Static Pressure & Sound Level

Outlet Area - 0.1119 m²

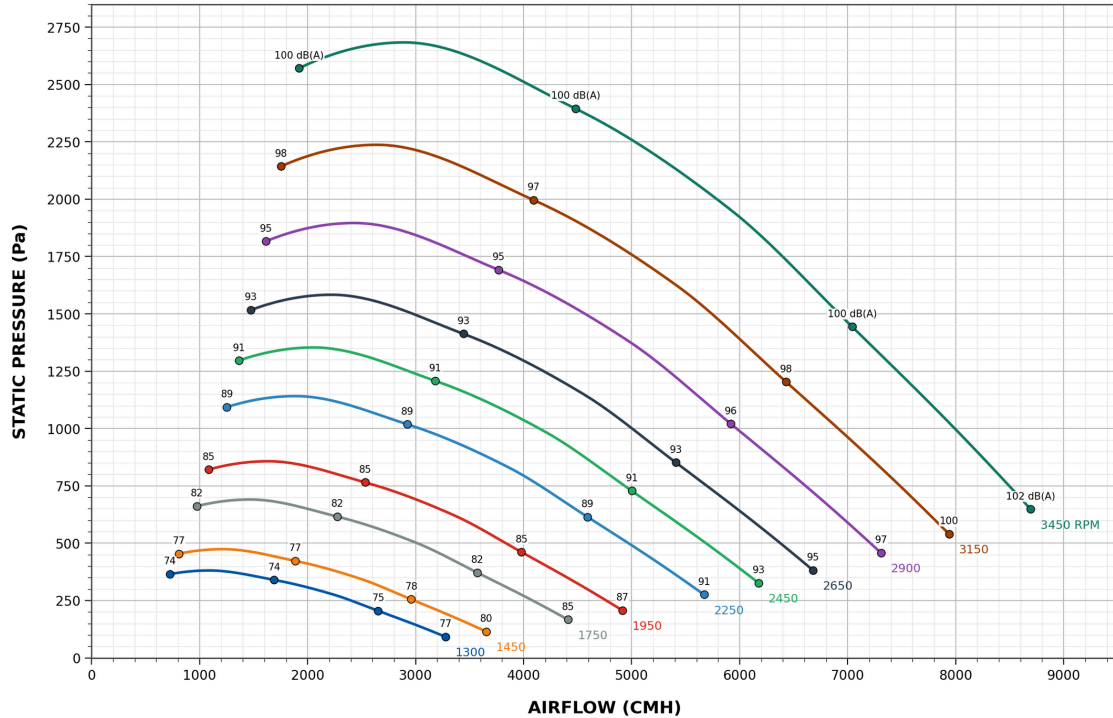
Density - 1.2 kg/m³

Direct - 3450 RPM

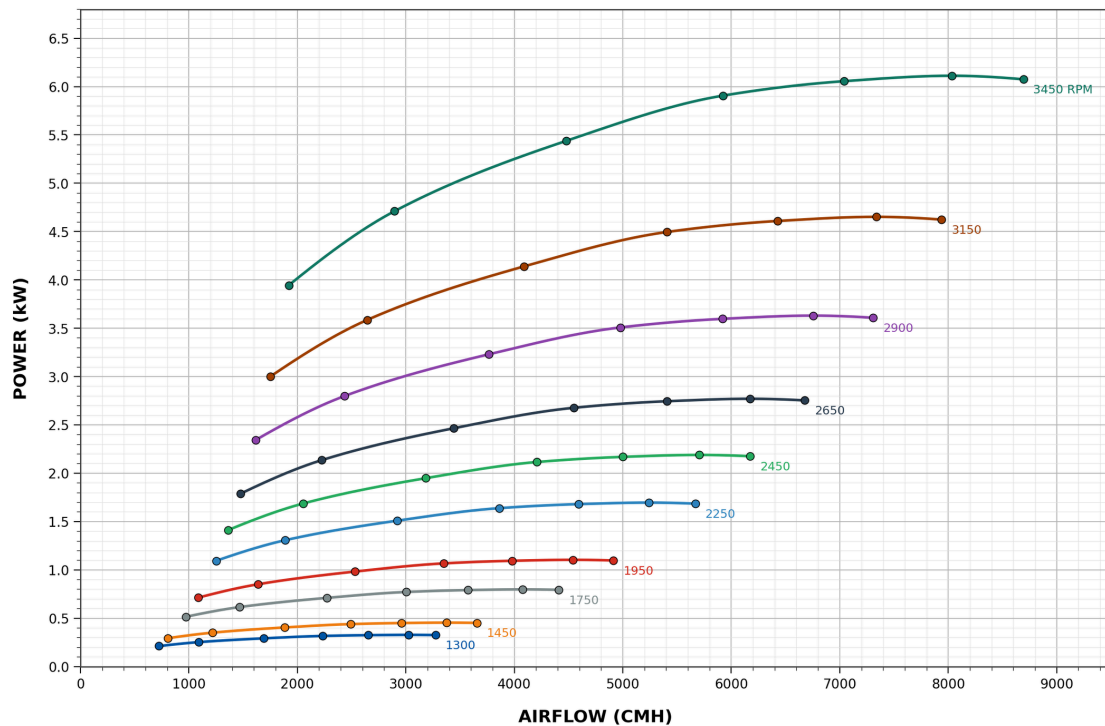
2900 RPM

1750 RPM

1450 RPM



Air flow Vs Power



Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation type B: free inlet, ducted outlet

Fan Performance

V S F 4 0 0

Airflow, Static Pressure & Sound Level

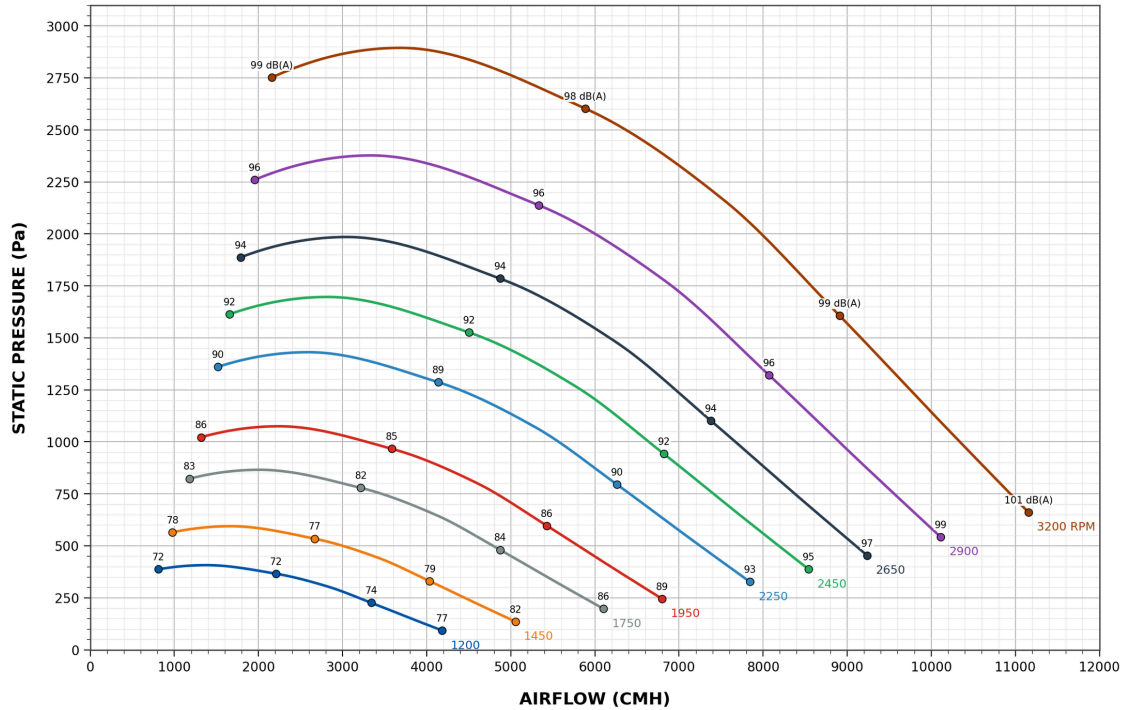
Outlet Area - 0.1389 m²

Density - 1.2 kg/m³

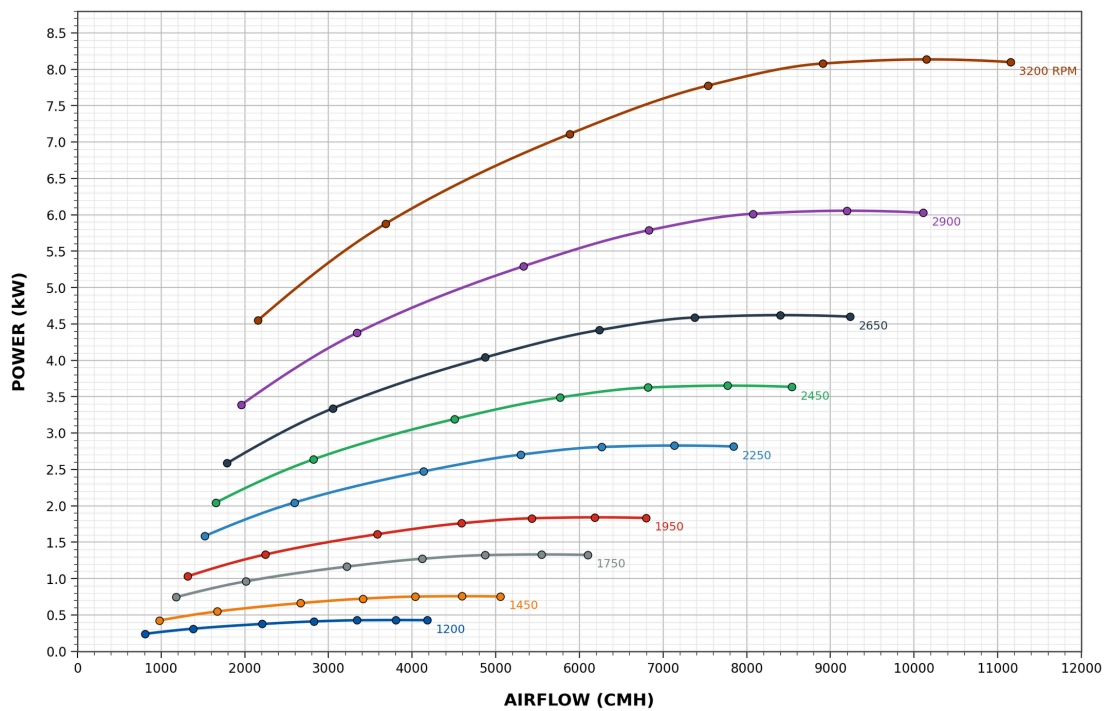
Direct - 2900 RPM

1750 RPM

1450 RPM



Air flow Vs Power



Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation type B: free inlet, ducted outlet

Fan Performance

V S F 4 5 0

Airflow, Static Pressure & Sound Level

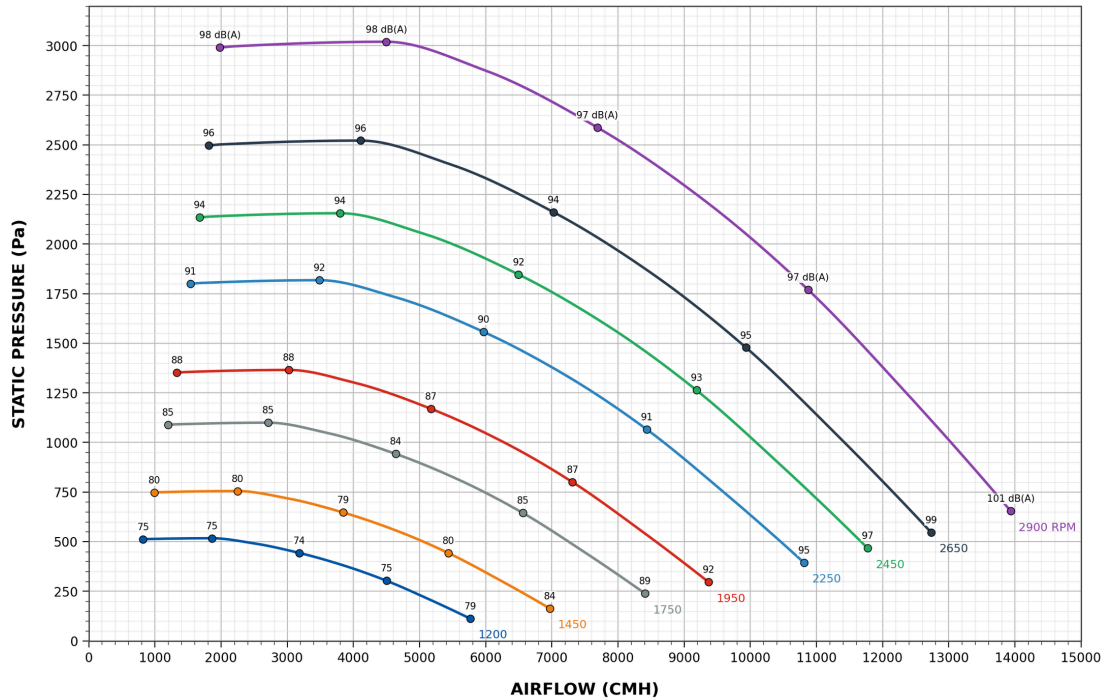
Outlet Area - 0.1753 m²

Density - 1.2 kg/m³

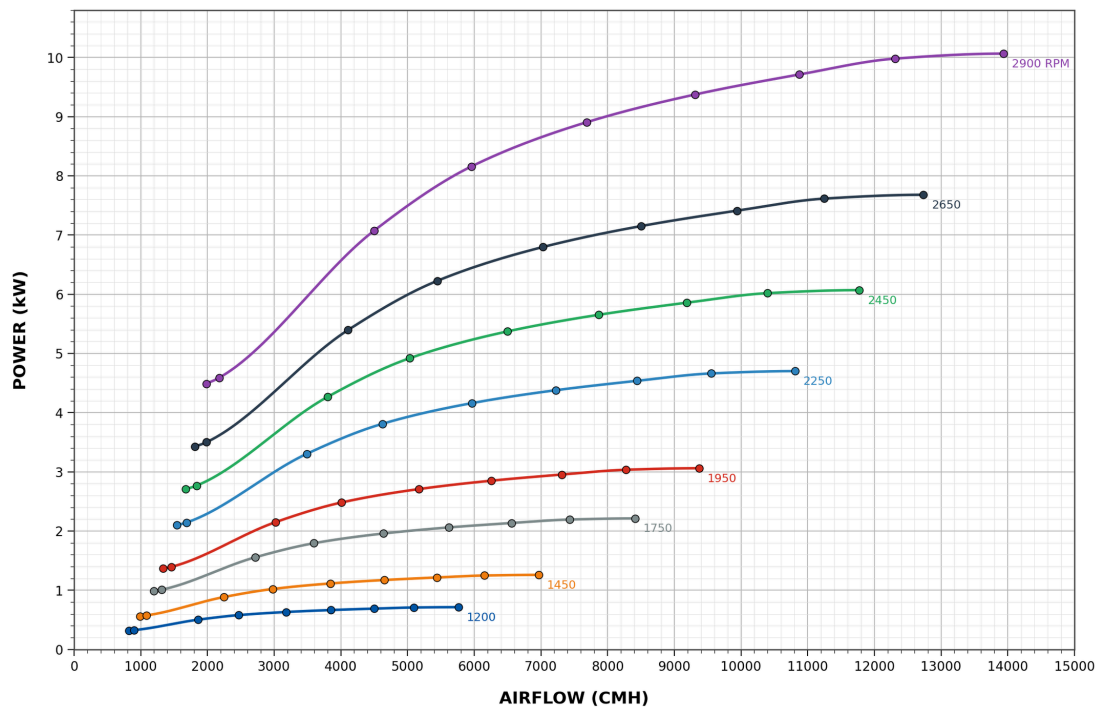
Direct - 2900 RPM

1750 RPM

1450 RPM



Air flow Vs Power



Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation type B: free inlet, ducted outlet

Fan Performance

V S F 5 0 0

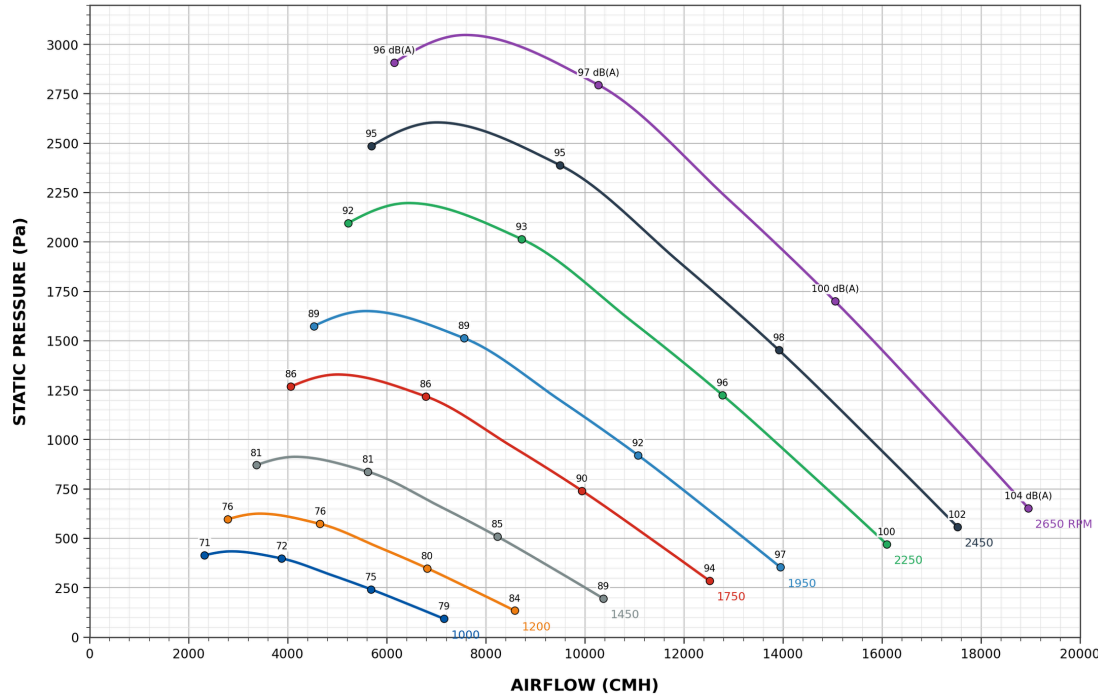
Airflow, Static Pressure & Sound Level

Outlet Area - 0.2195 m²

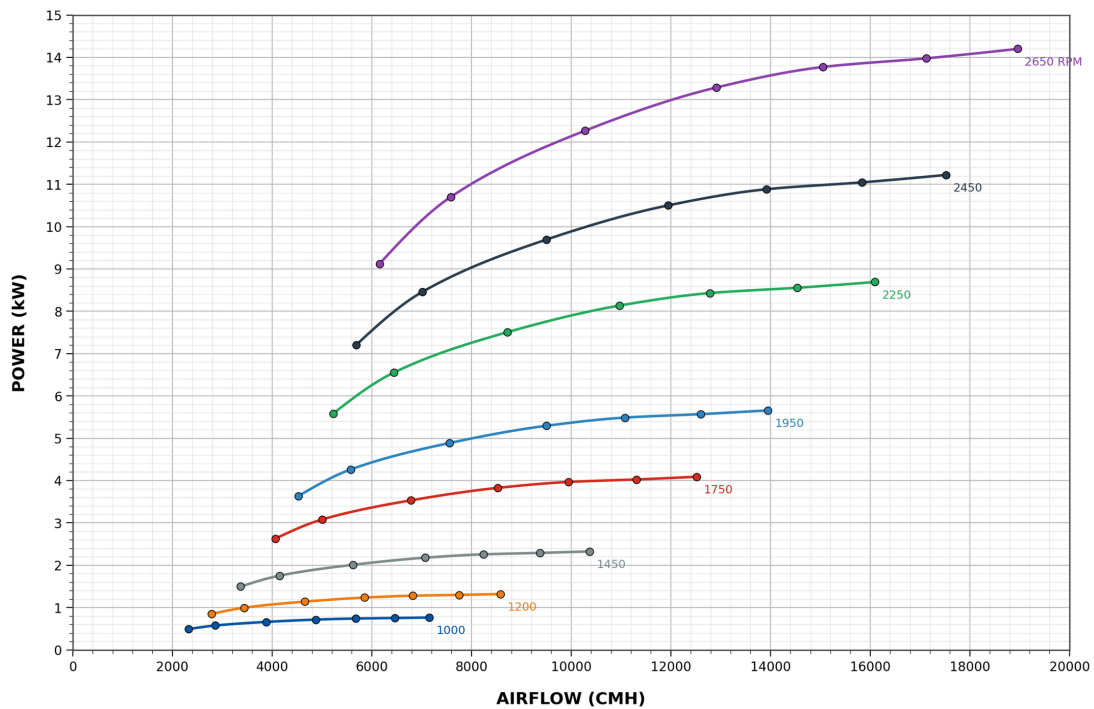
Density - 1.2 kg/m³

Direct - 1750 RPM

1450 RPM



Air flow Vs Power



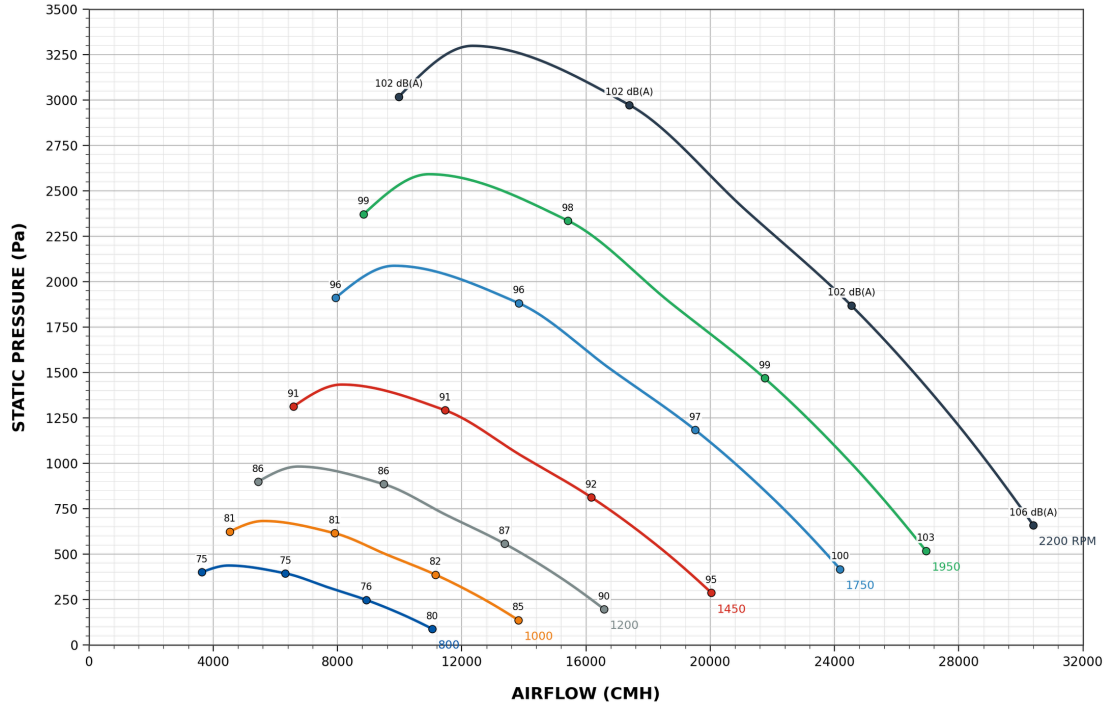
Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation type B: free inlet, ducted outlet

Fan Performance

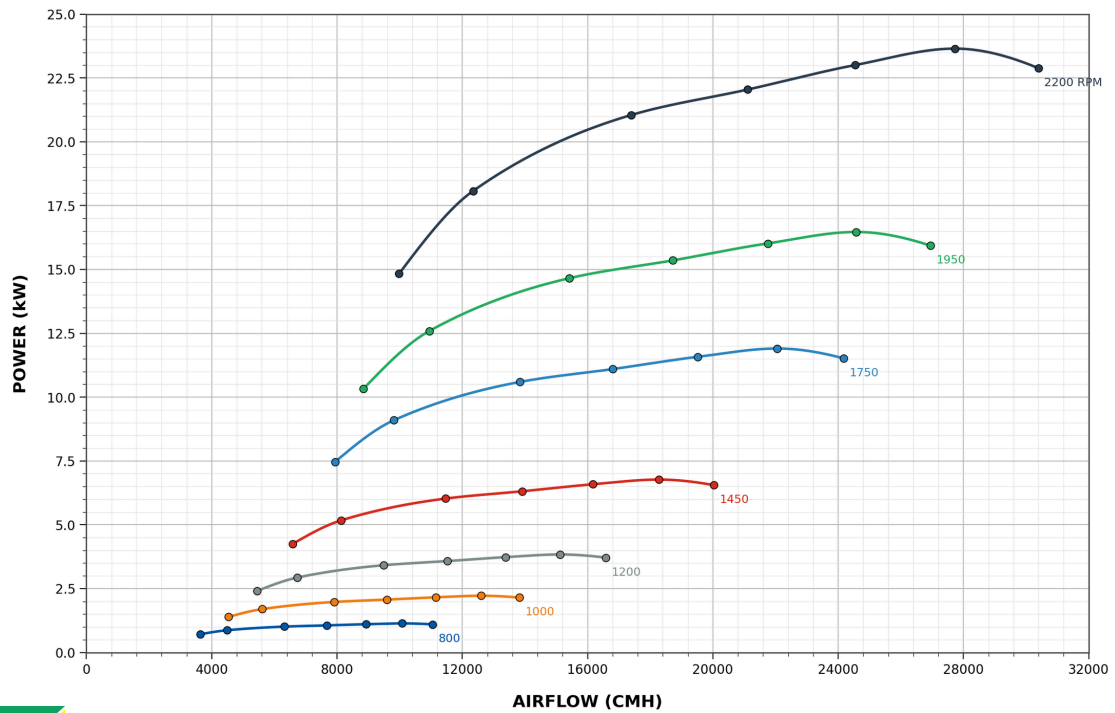
V S F 6 3 0

Airflow, Static Pressure & Sound Level

Outlet Area - 0.3460 m²
 Density - 1.2 kg/m³
 Direct - 1750 RPM
 1450 RPM



Air flow Vs Power



Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation type B: free inlet, ducted outlet

Fan Performance

V S F 710

Airflow, Static Pressure & Sound Level

Outlet Area - 0.4292 m²

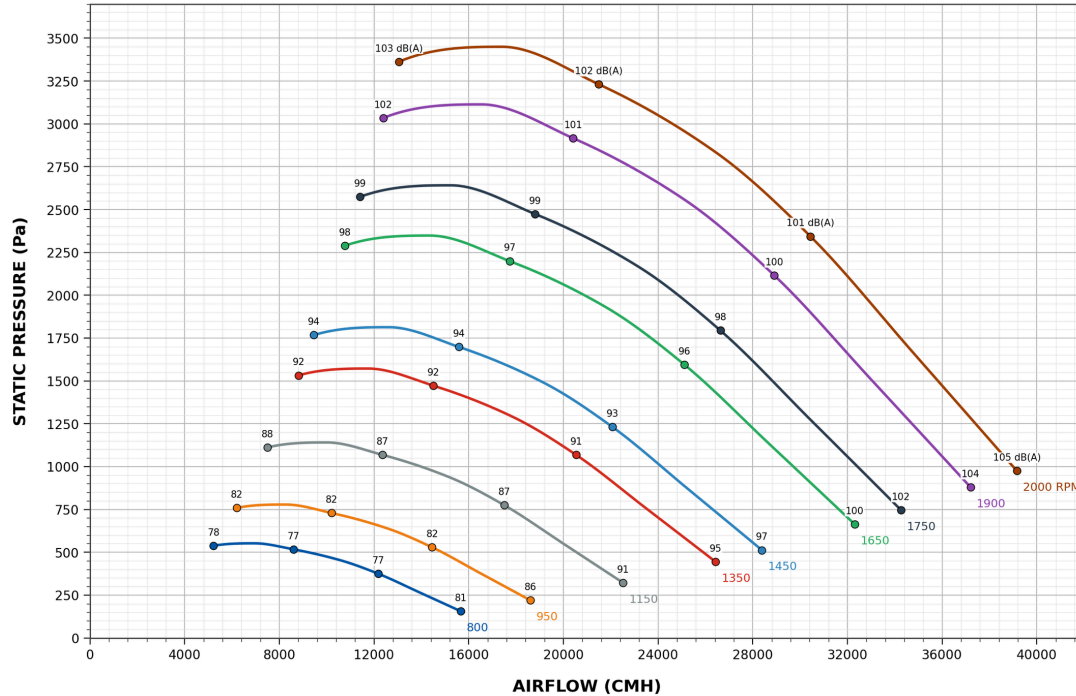
Density - 1.2 kg/m³

Direct - 1750 RPM

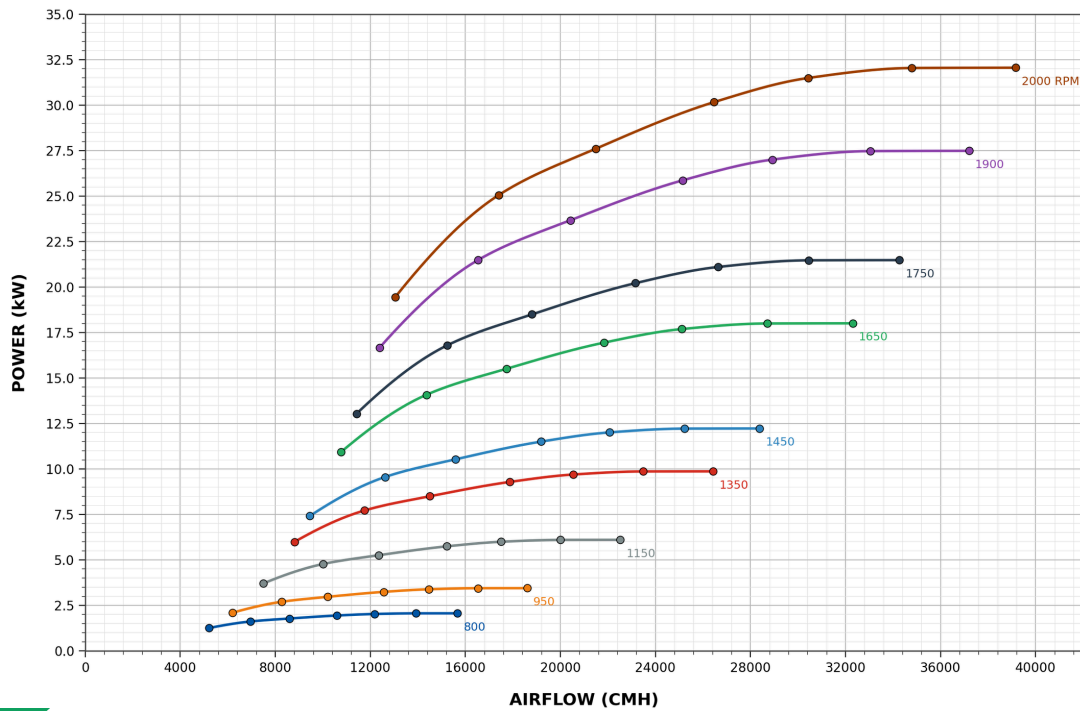
1450 RPM

1150 RPM

950 RPM



Air flow Vs Power



Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation type B: free inlet, ducted outlet

Fan Performance

V S F 8 0 0

Airflow, Static Pressure & Sound Level

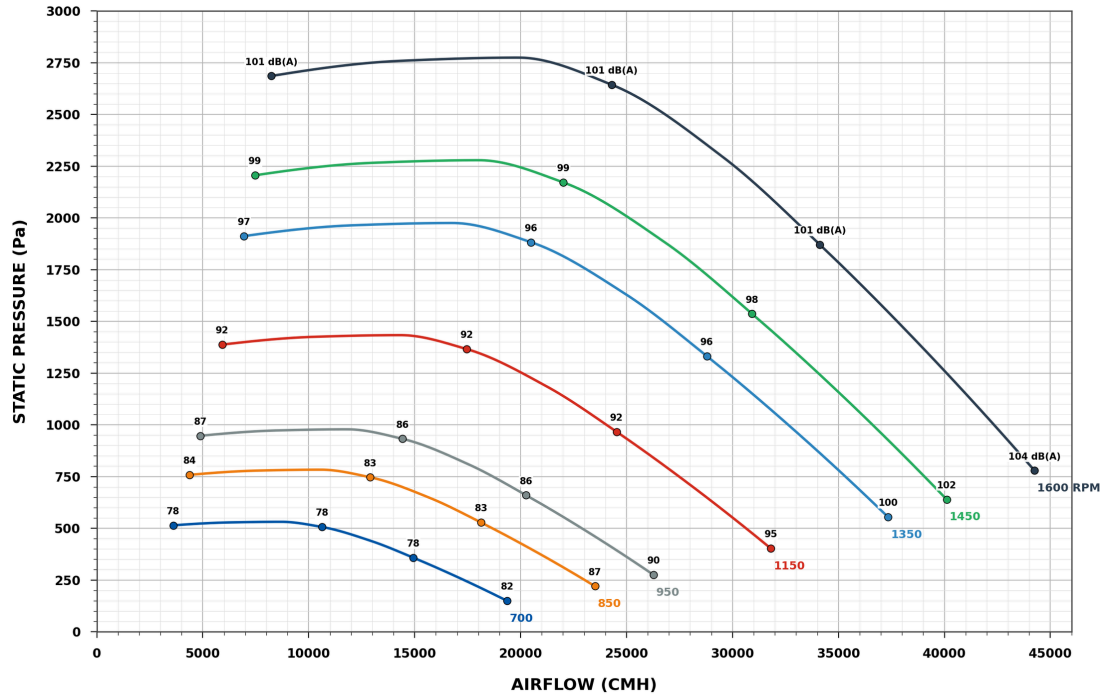
Outlet Area - 0.5367 m²

Density - 1.2 kg/m³

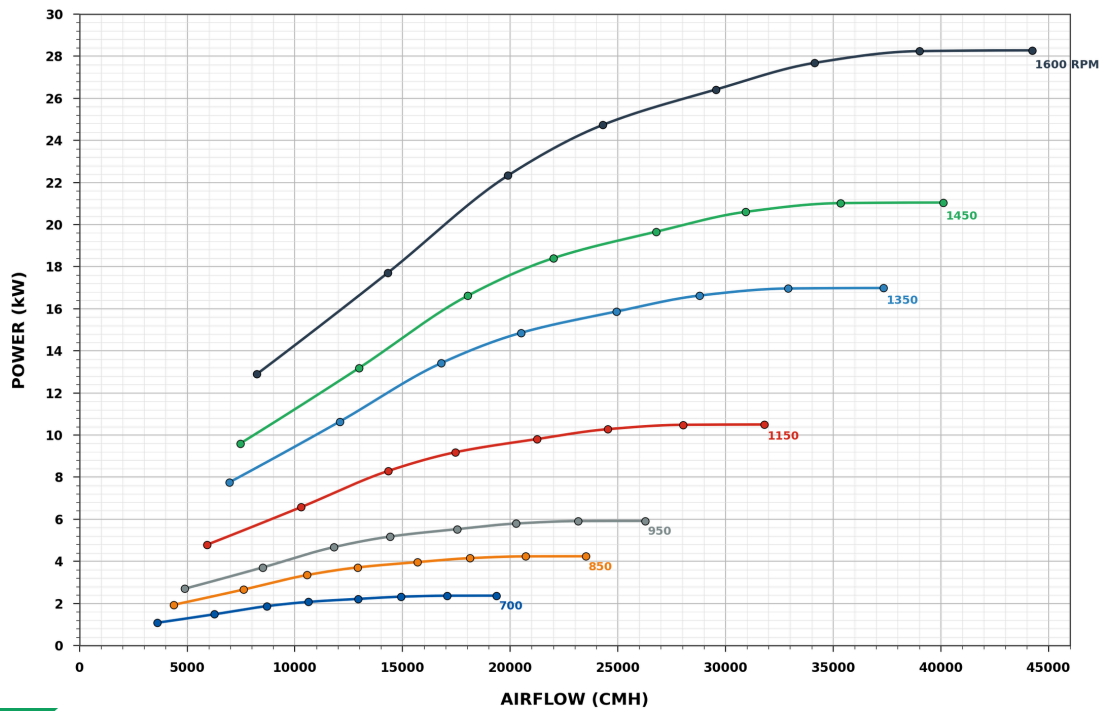
Direct - 1450 RPM

1150 RPM

950 RPM



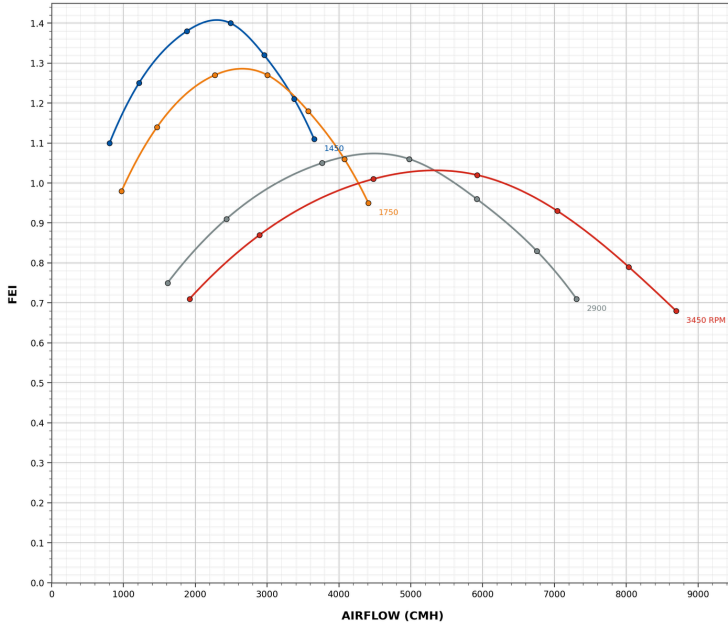
Air flow Vs Power



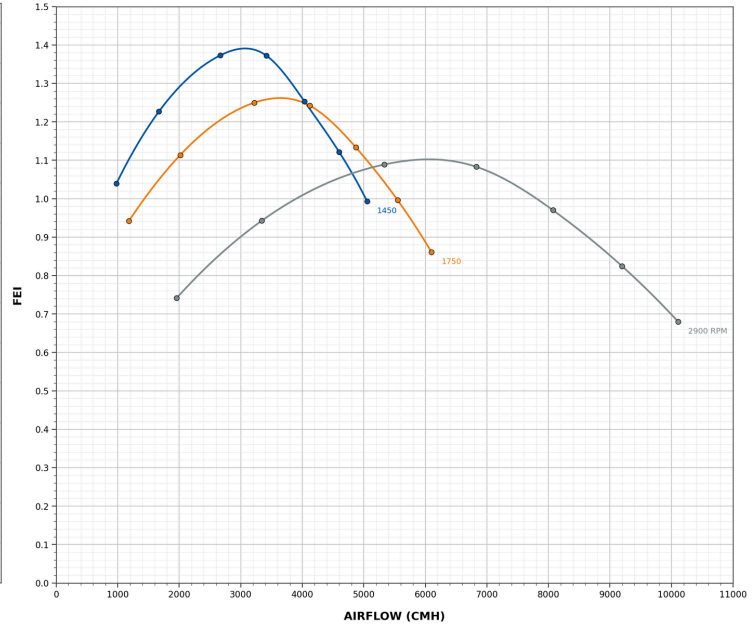
Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). The A-weighted sound ratings shown have been calculated per AMCA International Standard 301. Values shown are for inlet LwA sound power levels for installation type B: free inlet, ducted outlet

Fan Energy Index-Direct Driven Models

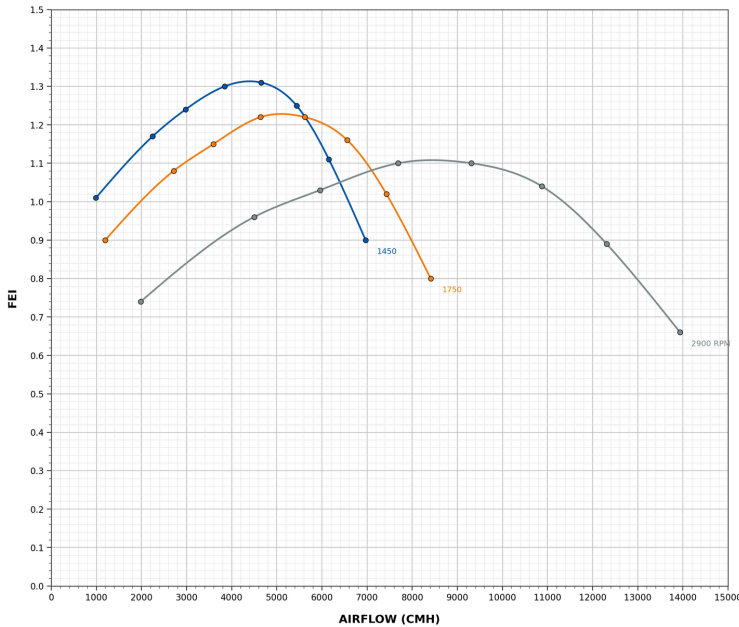
VSF 355



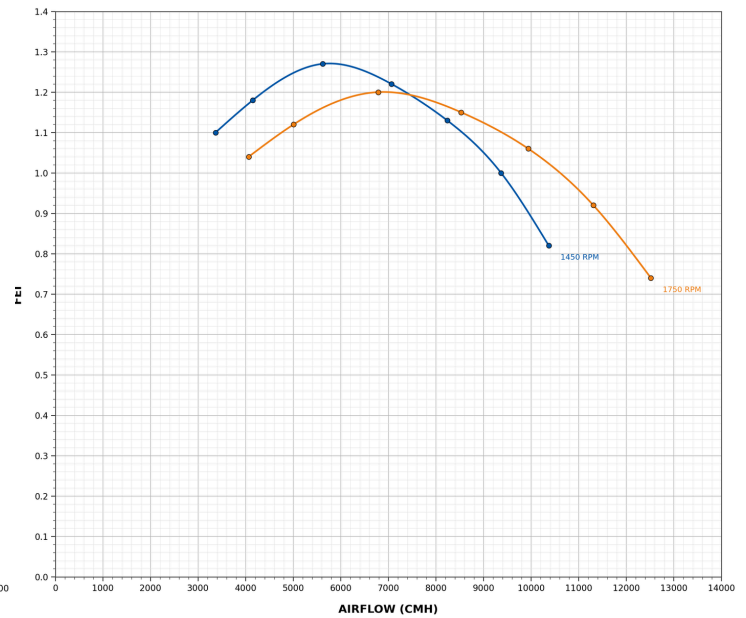
VSF 400



VSF 450

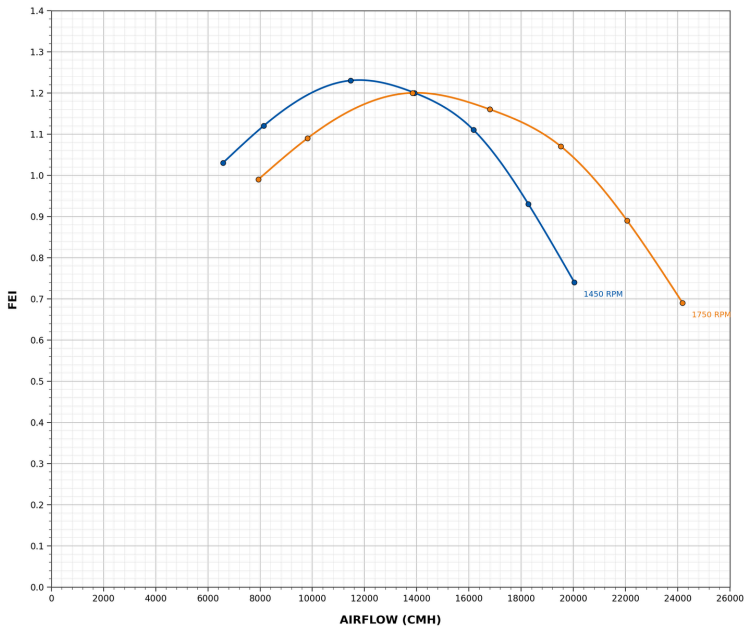


VSF 500



Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). FEI values are calculated in accordance with ANSI/AMCA Standard 208 and are based on default motor efficiencies (Direct Driven type). FEI values for fans with specific motors will vary slightly from those shown.

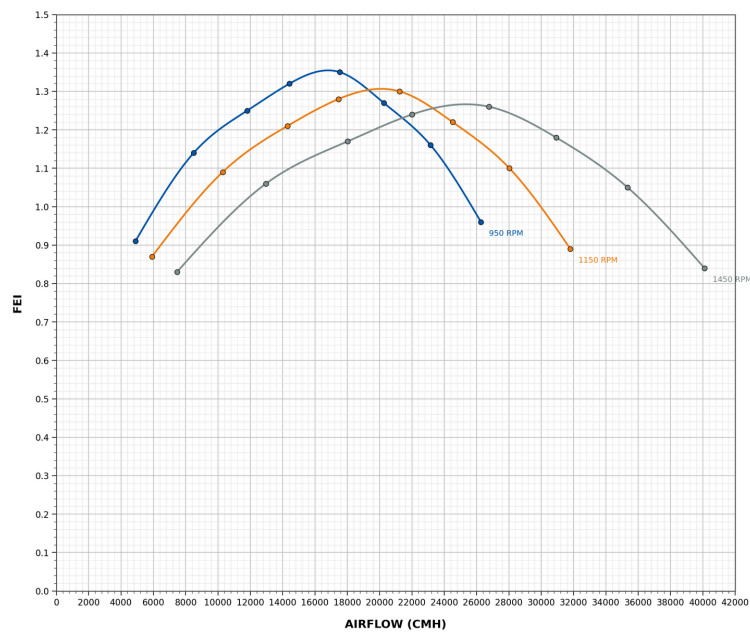
VSF 630



VSF 710



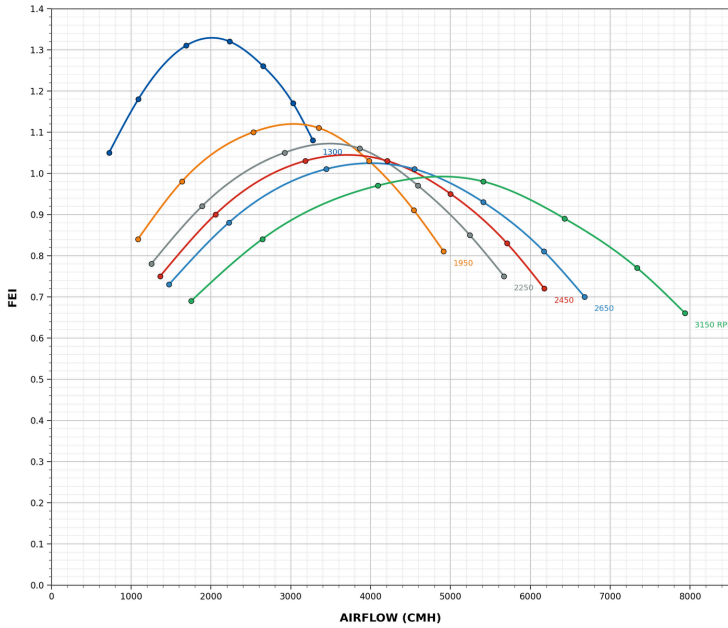
VSF 800



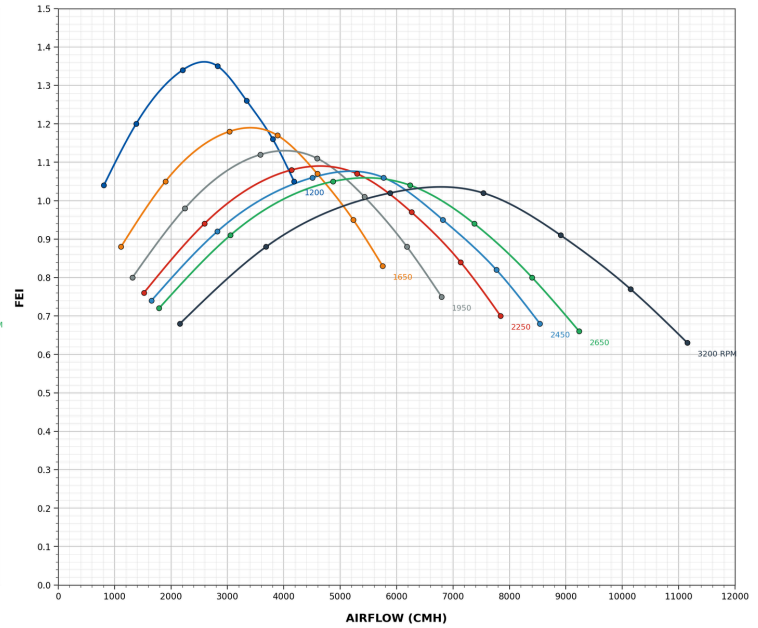
Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). FEI_r values are calculated in accordance with ANSI/AMCA Standard 208 and are based on default motor efficiencies (Direct Driven type). FEI_r values for fans with specific motors will vary slightly from those shown.

Fan Energy Index-Belt Driven Models

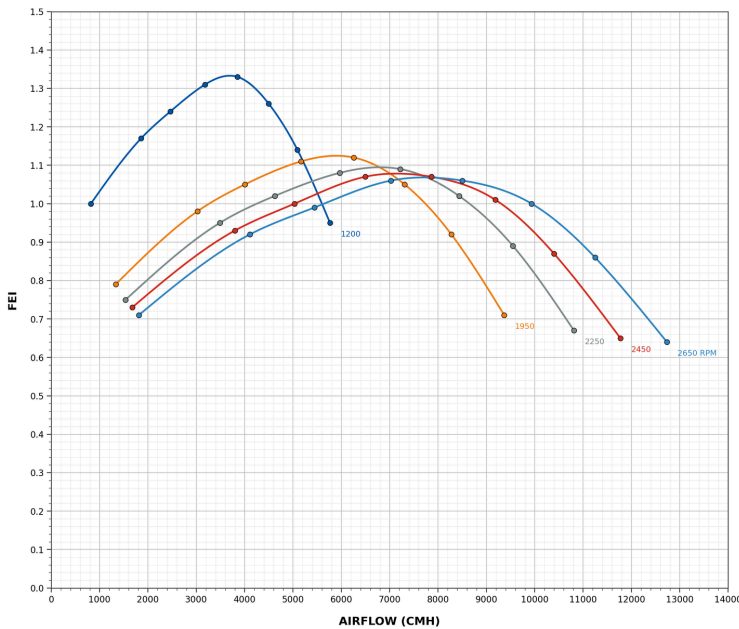
VSF 355



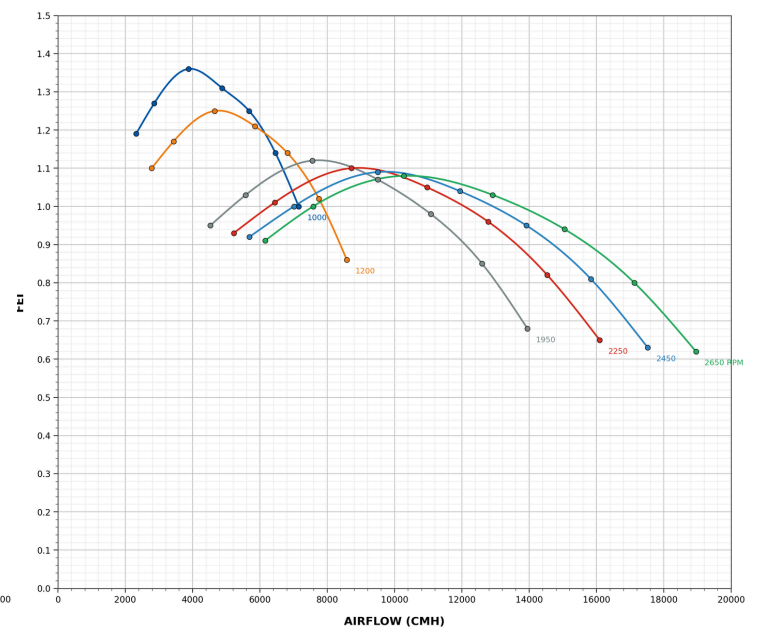
VSF 400



VSF 450

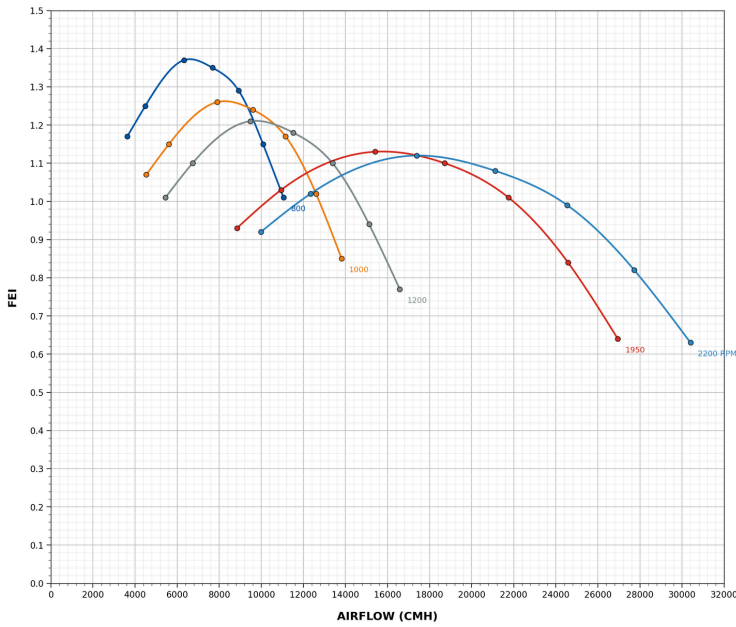


VSF 500

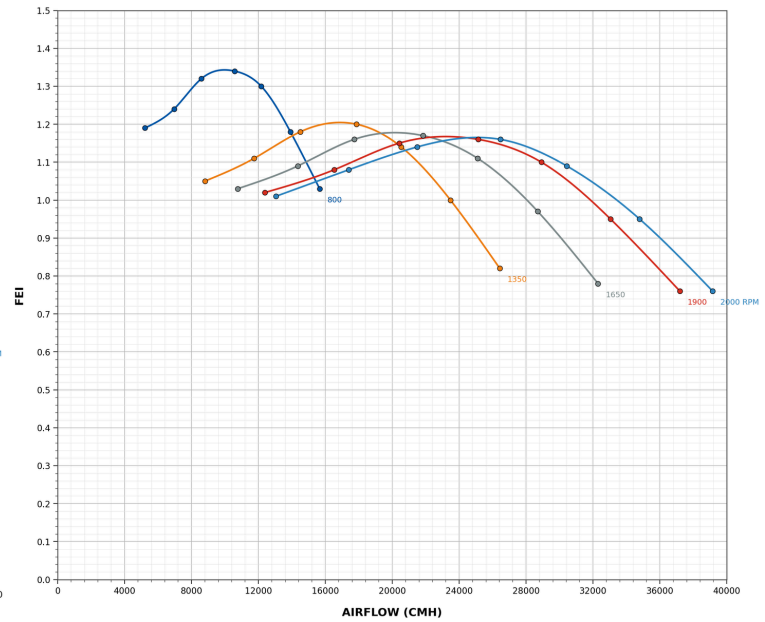


Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). FEI values are calculated in accordance with ANSI/AMCA Standard 208 and are based on default motor efficiencies (Belt Driven type). FEI values for fans with specific motors will vary slightly from those shown.

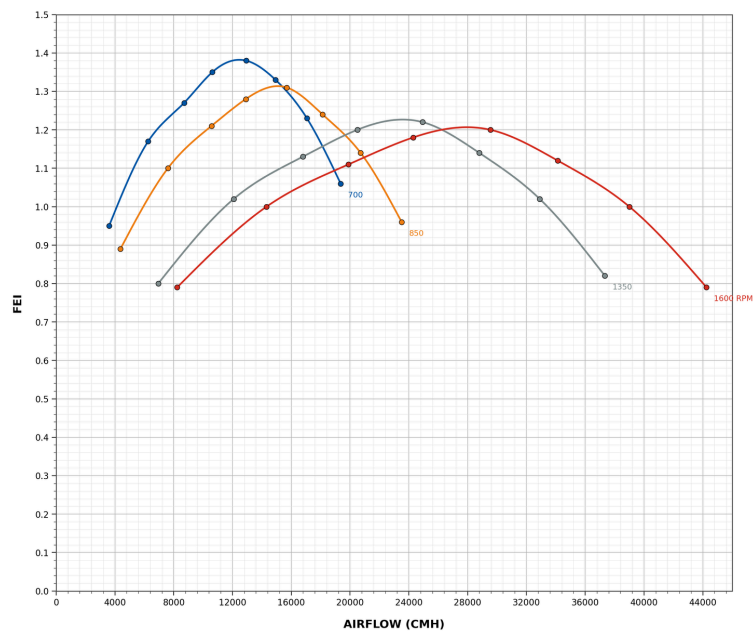
VSF 630



VSF 710



VSF 800



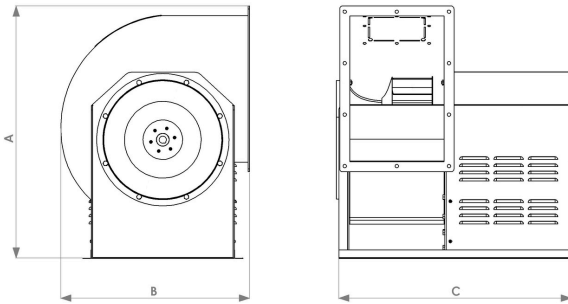
Performance certified is for installation type B: free inlet, ducted outlet. Power rating (kW) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories). FEI values are calculated in accordance with ANSI/AMCA Standard 208 and are based on default motor efficiencies (Belt Driven type). FEI values for fans with specific motors will vary slightly from those shown.

Dimensions

1.VSF- Belt

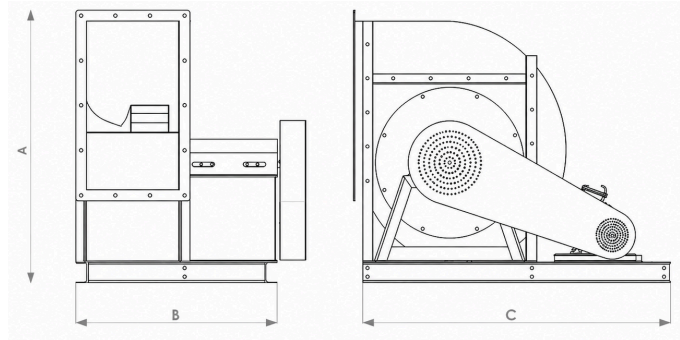
Orientation RD90 or LG90

A. Model VSF 315-B to VSF 630-B



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF-315-B	740	530	680	830
VSF-355-B	840	585	735	885
VSF-400-B	940	655	762	912
VSF-450-B	1041	730	890	1040
VSF-500-B	1140	805	942	1092
VSF-560-B	1255	898	970	1120
VSF-630-B	1450	1002	1015	1165

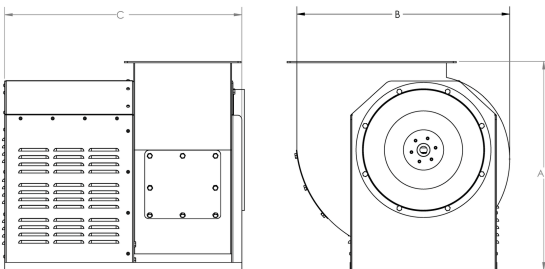
A. Model VSF 710-B to VSF 1000-B



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF-710-B	1385	1005	1430	1730
VSF-800-B	1570	1065	1550	1850
VSF-900-B	1750	1175	1740	2040
VSF-1000-B	1915	1245	1880	2180

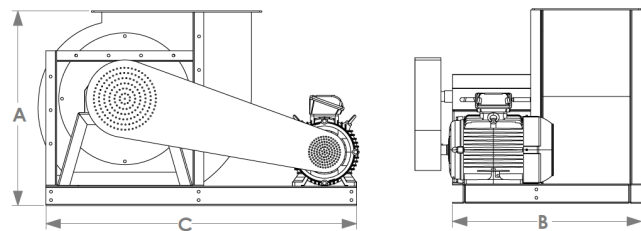
Orientation RD0 or LG0

A. Model VSF 315-B to VSF 630-B



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF-315-B	660	520	680	830
VSF-355-B	712	655	735	885
VSF-400-B	790	736	762	912
VSF-450-B	874	827	890	1040
VSF-500-B	955	917	942	1092
VSF-560-B	1041	1030	970	1120
VSF-630-B	1165	1157	1015	1165

A. Model VSF 710-B to VSF 1000-B

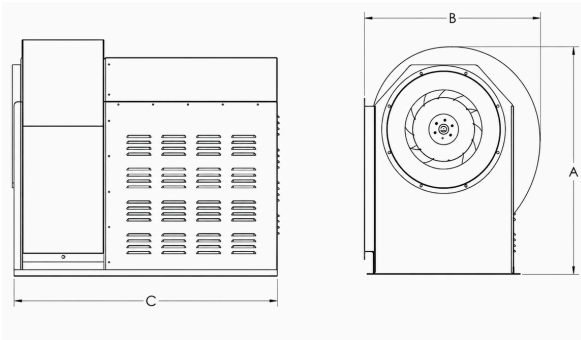


Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF-710-B	1205	1005	1730	2120
VSF-800-B	1360	1065	1830	2230
VSF-900-B	1515	1175	2020	2420
VSF-1000-B	1645	1245	2120	2580

Dimensions

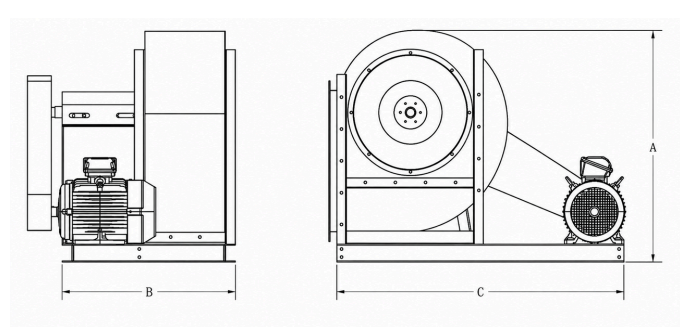
Orientation RD270 or LG270

A. Model VSF 315-B to VSF 630-B



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF-315-B	650	530	680	830
VSF-355-B	717	590	735	885
VSF-400-B	796	660	762	912
VSF-450-B	882	730	890	1040
VSF-500-B	1010	810	942	1130
VSF-560-B	1065	905	970	1190
VSF-630-B	1200	1010	1015	1245

A. Model VSF 710-B to VSF 1000-B

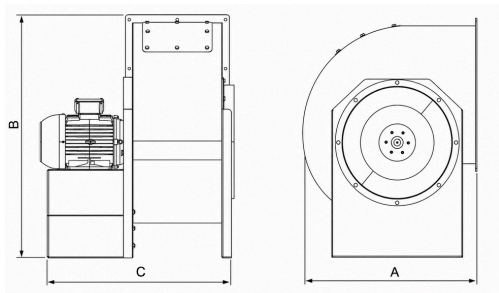


Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF -710-B	1390	1005	1430	1730
VSF-800-B	1570	1065	1550	1850
VSF-900-B	1750	1175	1740	2040
VSF-1000-B	1915	1245	1880	2180

2.VSF- Direct

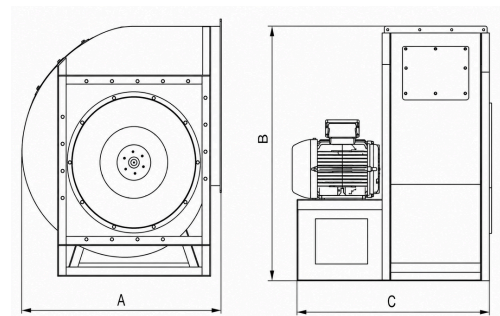
Orientation RD90 or LG90

A. Model VSF 315-D to VSF 630-D



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF-315-D	520	795	560	660
VSF-355-D	580	870	630	730
VSF-400-D	651	967	655	830
VSF-450-D	730	1090	730	865
VSF-500-D	800	1180	765	975
VSF-560-D	895	1320	800	1000
VSF-630-D	1000	1485	900	1100

A. Model VSF 710-D to VSF 1000-D

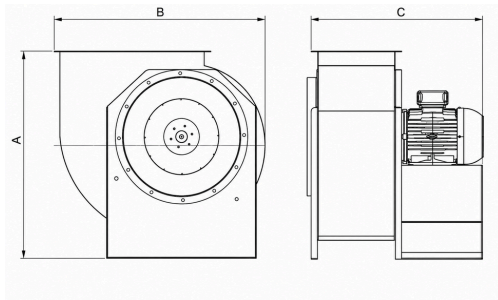


Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF -710-D	1121	1515	1100	1190
VSF-800-D	1250	1600	1200	1310
VSF-900-D	1410	1800	1400	1520
VSF-1000-D	1545	1960	1510	1620

Dimensions

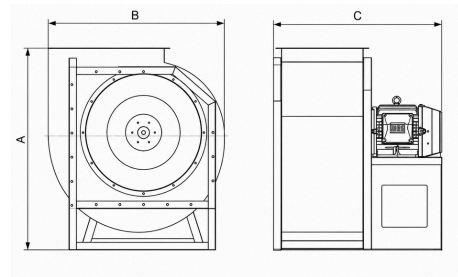
Orientation RD0 or LG0

A. Model VSF 315-D to VSF 630-D



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF-315-D	639	600	560	660
VSF-355-D	711	670	630	730
VSF-400-D	790	750	655	830
VSF-450-D	892	850	730	865
VSF-500-D	955	950	765	975
VSF-560-D	1070	1060	800	1000
VSF-630-D	1200	1205	900	1100

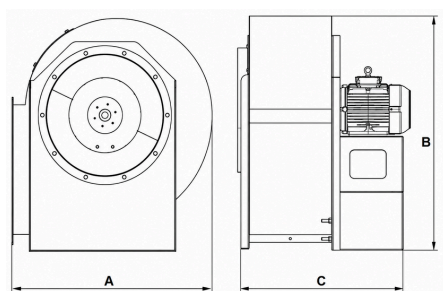
A. Model VSF 710-D to VSF 1000-D



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF -710-D	1250	1350	1100	1190
VSF-800-D	1350	1510	1200	1310
VSF-900-D	1508	1695	1400	1520
VSF-1000-D	1641	1860	1510	1620

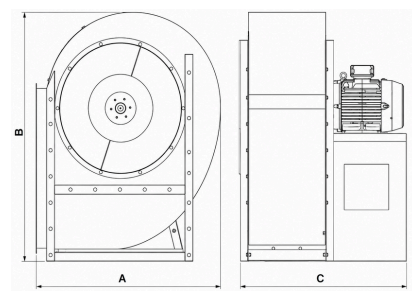
Orientation RD270 or LG270

A. Model VSF 315-D to VSF 630-D



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF-315-D	518	655	560	660
VSF-355-D	580	735	630	730
VSF-400-D	651	830	655	830
VSF-450-D	730	920	730	865
VSF-500-D	800	1010	765	975
VSF-560-D	895	1140	800	1000
VSF-630-D	1000	1255	900	1100

A. Model VSF 710-D to VSF 1000-D



Model	A-mm	B-mm	Cmin -mm	Cmax-mm
VSF -710-D	1121	1416	1100	1190
VSF-800-D	1250	1598	1200	1310
VSF-900-D	1410	1800	1400	1520
VSF-1000-D	1545	1960	1510	1620