

Factors Affecting Fan Selection

| AIRSTREAM CONDITION | ENVIRONMENT CONDITION | GEOMETRY/ STRUCTURE | CUSTOMER PREFERENCES | FAN VARIABLES AFFECTED BY (OR A FUNCTION OF) THE FOUR PRIMARY CONSIDERATIONS | AIRSTREAM CONDITION | ENVIRONMENT CONDITION | GEOMETRY/ STRUCTURE | CUSTOMER PREFERENCES | FAN VARIABLES AFFECTED BY (OR A FUNCTION OF) THE FOUR PRIMARY CONSIDERATIONS |
|------------------------|--------------------------|------------------------|-------------------------|--|------------------------|--------------------------|------------------------|-------------------------|--|
| X | | | | Volumetric Flow Rate CFM | X | | | | Lo-Temp Construction |
| X | | | | Fan Static Pressure in WG | X | X | | X | Custom Shaft Seal |
| X | | | | Fan (Wheel) Type | X | | | | Shaft Cooler |
| X | | | | Performance Class | | | | X | Access Door Type |
| X | | | | Fan (Wheel) Size | | | | X | Access Door Seal |
| X | | | | Fan (Wheel) Width | | | | X | Custom Drain |
| X | | | | Wheel Speed (RPM) | | | X | X | Fan Inlet Flange |
| X | | | | Operating Temperature | | | X | X | Fan Outlet Flange |
| X | | | | Fan Brake HP | | | | X | Unusual Drive Arrangement |
| | | X | X | Fan Wheel Rotation | | | | X | Motor Supplied by Others |
| X | | | | Motor HP | | | | X | Motor Installed by Others |
| | | | X | Motor Mfr (Brand) | | X | | | Custom Drive Service Factor <small>(Elev. affects motor svce factor)</small> |
| | | | X | Motor Type (electric or gas, etc.) | X | X | | X | Custom Bearing Type |
| | | | X | Motor Enclosure Type | | | | X | Extended Life Bearings |
| | | | X | Motor Efficiency Class | | X | X | X | Extended Lube Lines |
| | | | X | Motor Volt / Cycle / Phase | | | | X | Adjustable Sheaves |
| X | | | X | Motor RPM | | | X | X | Unitary Base |
| X | | | X | Motor Frame Size | | | | X | Vibration Switch |
| X | X | | X | Custom Motor Bearings | | | | X | Bearing Temp. Detector |
| X | | X | X | Drive Arrangement | | | | X | Custom Belt Guard |
| | | X | X | Discharge Position | | | | X | Custom Shaft Guard |
| | | X | X | Motor Location | | | X | X | Weather Hood |
| X | | | | Spark Resistance Class | | | X | X | Paint Specification |
| X | | | X | Custom Scroll Material | | | X | X | Sound Abatement Insulation |
| X | | | X | Custom Cheek Material | X | | X | X | Heat Loss Insulation |
| X | | | X | Housing Liner (rubber) | X | | X | X | Insulation Thickness |
| X | | | X | Custom Air-Stream Material | X | | | X | Type of Hub |
| X | | | X | Custom Wheel Material | X | | | | Hub Length |
| X | | | X | Wear Plates on Wheel | X | | | | Hub Cone |
| | X | X | X | Custom Pedestal Material | X | | | | Weight of Wheel |
| | | X | X | Horiz. Split Housing | X | | | X | Critical Speed |
| | | X | X | Pie-Slice Split Housing | X | | | X | Fan Shaft Diameter |
| X | | | | Hi-Temp Construction | X | | | | Coupling or Sheave ID & Length |