Single inlet centrifugal fans

## BSP Series

# Serial BSP

## BSP 1000



Range of belt driven single inlet centrifugal fans, designed for emergency smoke extraction in fire conditions and certified F400-120. The fans are also suitable for supply or exhaust applications in commercial and industrial buildings.
Sizes of this series are in accordance with AMCA standard 99-0098-76 and DIN323R20.

**Operating limit**
Each fan type has its maximum operating speed and power due to its mechanical design. The operating limit of BSP series is adjusted to meet the requirement of class I limit as defined in AMCA standard 99-2408-69.

**Motor**
Foot-mounted motor (B3), IP55, Class F insulation.
Electrical supplies:<dd>Three phase 220-240/380-415-50/60* Hz up to 3 kW.
(*Check Easyvent for 60Hz available models).
T hree phase 380-415V-50Hz, for higher power motors and two speed motors.</dd>1 speed motor are speed controllable by inverter.

**Wheel**
The wheel of BSP series has backward curved blades manufactured in cold rolled sheet steel with polyester powder coating finish.

**Housing**
For all sizes, the housing is manufactured in galvanized sheet steel with the housing fixed to the side plates in "pittsburg lock" form system.

**Frame**
The frame is manufactured with galvanized angular bars for type "C".
For type "T", they are manufactured with sections of steel and finished with polyester powder coating.
-Type C (models from 315 to 630)
- Type T (models from 710 to 1000).

**On request**
Inspection door (IP) and drain hole (CD).
Epoxy paint.
2 speed motors.

## Technical data

Technical characteristics

Before making any electrical connection ensure that the voltage and frequency of the mains electrical supply matches that of the fan data place label.
Explosion proof types only work at an ambient temperature between -30ºC and +40ºC.

| Model | Minimum motor power (kW) | Maximum motor power (kW) | N. min (r.p.m.) | N. max (r.p.m.) | Maximum temperature in continuous operation (ºC) | Weight (Kg) |
|---|---|---|---|---|---|---|
| 315 | 0,25 | 3 | 1400 | 3100 | 85 | 19 |
| 355 | 0,25 | 4 | 1200 | 2800 | 85 | 25 |
| 400 | 0,55 | 4 | 1300 | 2500 | 85 | 33 |
| 450 | 0,55 | 5,5 | 1000 | 2200 | 85 | 42 |
| 500 | 0,75 | 5,5 | 900 | 1950 | 85 | 55 |
| 560 | 0,75 | 7,5 | 800 | 1800 | 85 | 76 |
| 630 | 0,75 | 7,5 | 700 | 1500 | 85 | 101 |
| 710 | 1,1 | 11 | 600 | 1350 | 100 | 189 |
| 800 | 1,1 | 15 | 500 | 1200 | 100 | 228 |
| 900 | 1,5 | 15 | 500 | 1050 | 100 | 285 |
| 1000 | 3 | 18,5 | 500 | 950 | 100 | 338 |
| 1120 | 3 | 22 | 400 | 850 | 100 | 575 |
| 1250 | 3 | 30 | 350 | 780 | 100 | 769 |
| 1400 | 5,5 | 45 | 350 | 680 | 100 | 1048 |

## Reference

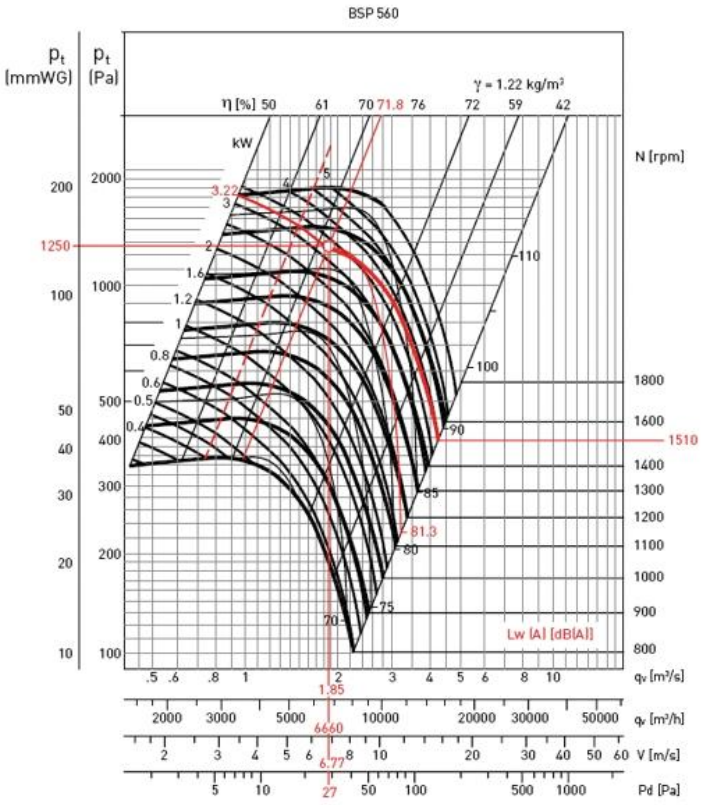
| BSP | - | 800 | - | TM | - | 11kW | - | 900 | - | 90 | - | CCW | - | 400V-88Hz |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 |

**1 - :** Serie.
**2 - :** Impeller diameter (mm).
**3 - :** Fan type.
**4 - :** Motor power (kW).
**5 - :** Fan speed (r.p.m.).
**6 - :** Orientation (º).
**7 - :** Rotation type.
**8 - :** Electrical supply.

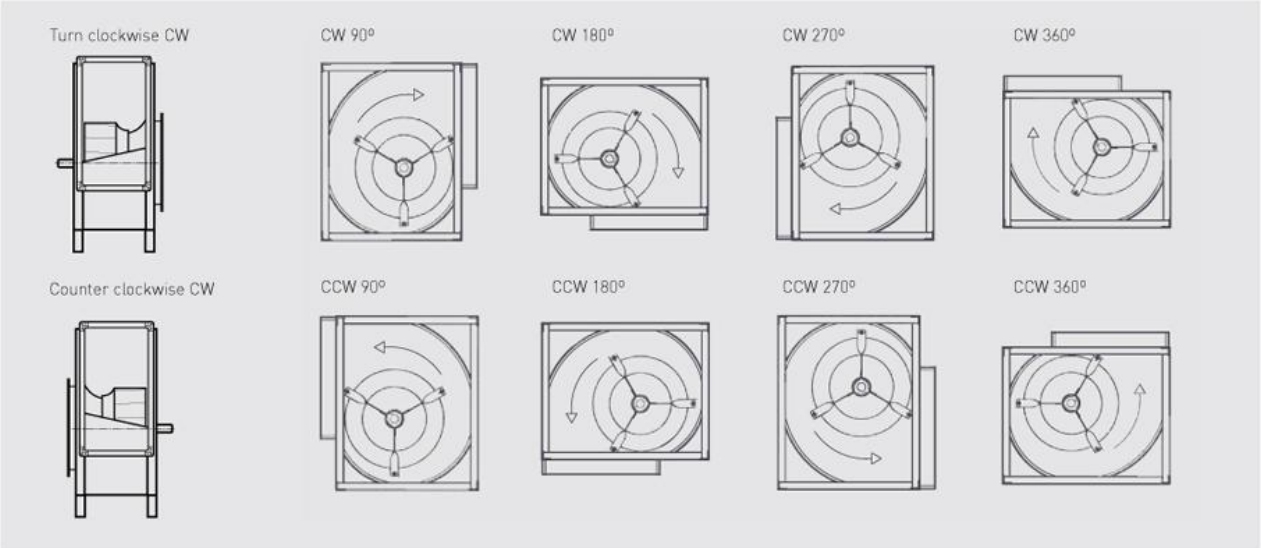
## Curve - Example of selection

- Airflow: $q_v$ = 6660 m³/h
- Outlet velocity: V = 6.77 m/s
- Dynamic pressure: Pd = 27 Pa
- Total pressure: $p_t$ = 1250 Pa
- Fan speed: N = 1510 rpm
- Absorbed power: W = 3.22 kW
- Total effciency: η = 71.8 %
- Sound power level: Lw(A) = 81.3 dB(A)

- Performance shown is for Installation type B - free inlet, ducted outlet. Performance ratings do not include the effects of appurtenances in the airstream. Power rating kW does not include drive losses.
- The A-weighted sound ratings shown have been calculated per AMCA standard 301. Values shown are for inlet Lwi(A) sound power levels for installation type B - free inlet, ducted outlet. Ratings do not include the effect of duct end corrections.




## Orientation




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