Centrifugal fans

ZWPS

The ZWPS with swing-out motor and impeller is a medium pressure centrifugal fan especially developed applications where robust execution and easy maintenance are key customer demands such as in land-based aquaculture. Then fan can also be delivered with ATEX/IECEx certification



Standard sizes
200 – 630 mm

Air flow
215 – 30.000 m3/h

Static pressure
195 – 3.400 Pa

Engine power
0 – 37kW

Summary

Design

The ZWPS fans are single inlet centrifugal fans with direct drive as a standard.

The fan is designed to allow for swing-out of the complete motor assembly and fan impeller for easy maintenance and cleaning.

The fan can be mounted according to the positions given by Eurovent standard for centrifugal fans. Often it can be used as a central with a plenum section chamber for multiple duct connections.

The fan is very customizable to ensure ultimate fit for the needed application.

Execution

The ZWPS fan can be produced in several types of material. The standard execution is HDG steel. The fan can also be delivered completely (housing/impeller) manufactured in stainless steel (AISI316L). This gives a corrosion resistant fan suitable for harsh environments.

Painted execution is delivered on request.

Impeller

The impeller is usually delivered in the same material as the fan housing where the standard is salt and ammonia resistant aluminium. The impellers are dynamically balanced.

The impeller can be delivered in four different types:

Type B: Backward, convex curved blades. The standard impeller. Cost effective with high efficiency.

Type F: Forward curved blades (Scirocco impeller). For applications where high air flows are required). Only for smaller fans.

Type Z: Backward, concave curves blades. Self-cleaning impeller, ideal for applications where dust or material can build up on the impeller.

Type R: Radial blades. Heavy duty impeller for transport applications (e.g. saw dust).

Motor

The motors are as standard squirrel-cage induction motors in marine execution. Motors are IP55 and insulation class F as standard. Motor prepared for frequency converter is available on request. The fans can also be equipped with EX motors class Exe (increased safety), Exd or Exde (explosion-/flameproof) or EXN motor.

Customizations

- Belt driven execution.
- With gas tight motor flange
- With coupling drive
- With coupling drive and cooling wheel (air cooled) for high temperature applications

Accessories

- Vibration dampers
- Flexible connections (inlet / outlet)
- Counter flange (inlet / outlet)
- Protection grid (inlet / outlet)
- Flanged inlet
- Drain plug
- Inspection hatch
- Motor pedestal (required for heavy motors)
- Base frame / foundation
- Earthitng plug for fan / motor pedestal
- Suction chamber on inlet
- Iris / regulating damper
- Diffuser on outlet

Gallery



