



# High performance centrifugal fans



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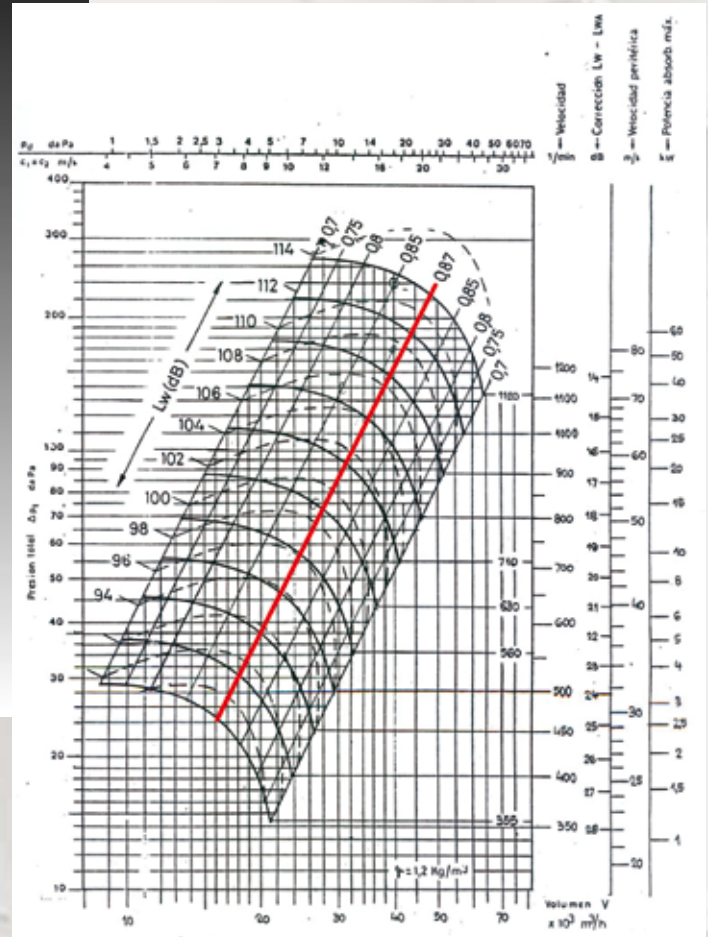
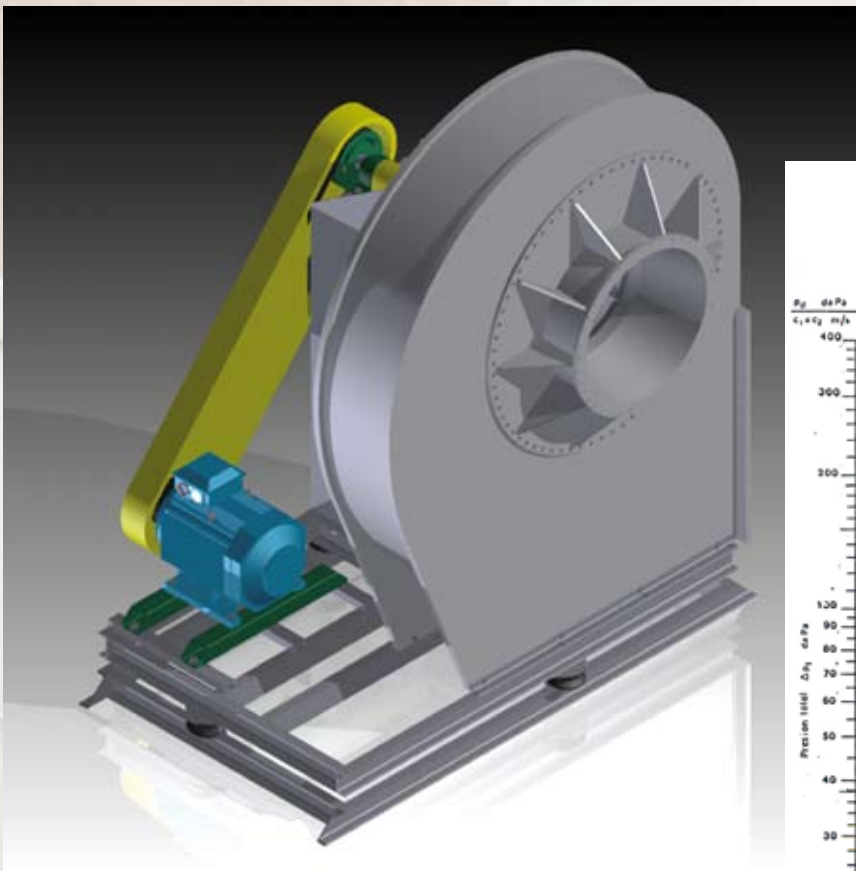


# High performance centrifugal fans

The PPA VENT centrifugal fans are high performance fans. The impeller design favours air flow via the blades, thereby reducing shock and eddy losses.

There are two series of PPAVENT Fans:

- Medium pressure PPA-VM/RU-sizes from 100 up to 1800, with efficiency of up to 87% and maximum pressure and flow of 200,000 m<sup>3</sup>/h and 250 mm wc. Works with performances of 80% up to a maximum of 87%, in large flow areas.
- High pressure PPA-VA/RU sizes from 100 up to 1000, with efficiency of up to 80% and maximum pressure and flow of 120,000 m<sup>3</sup>/h and 650 mm wc. Works with efficiencies of 70% up to a maximum of 80%, in large flow areas.



## NOMENCLATURE OF PPAVENT FANS:

PPA- VM/RU -400- R - LG 180°  
 VA/RU M RD

- VM/RU: Medium pressure serial
- VA/RU: High pressure serial
- 400: Size
- R: Engine coupling by belts
- M: Engine coupling direct
- LG: Counterclock rotation
- RD: Clockwise rotation
- 180°: Position of housing

The main characteristics of the PPA VENT centrifugal fans are as follows:

**Overview.**

The working range with efficiency exceeding 80% is very large and encompasses approximately from 70% to 122% of the flow corresponding to the optimum service point. This makes easy the selection of the fan size, the specific deviations from the chosen operating point as regards to the optimum point and does not significantly affect the performance of the fan.

**Reduced energy consumption.**

In terms of energy consumption, the use of elements designed to minimise pressure losses of the plants and the design of our medium-high pressure fans, guarantee plants with minimum energy consumption.

**Overload protections.**

The fans absorb the rated consumption approximately at the best efficiency point. This ensures that the motor is never overloaded, even when there are deviations between the operating point and the theoretical point.

**Silent.**

The fluid flow is regular and almost without eddies or losses. These results are obtained thanks to the design of the impeller and the suction vent.

**Construction**

The housing and the impeller are manufactured in suitable material, both as regards to anti corrosion needs, as well as working temperatures. Manufacturing materials: PPH, PPS, HDPE, PPS-el, PVDF, FVRV.

Up to size 315 inclusive, are manufactured entirely in plastic, on a frame manufactured in U channels with antivibration brackets.

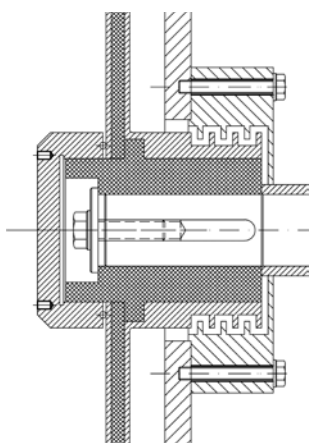
In the case of belt drive fans, the motor is mounted on slide rails, on a common fan frame and motor, manufactured in U angles with antivibration brackets

**Spare parts.**

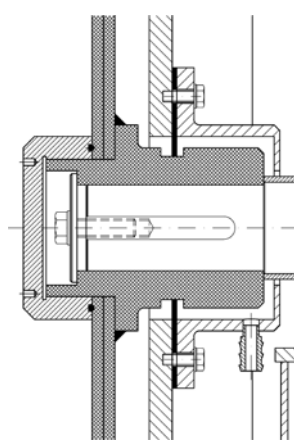
As the spare parts are manufactured according to international standards, all components are standard components which are easy to replace and change.



Labyrinth seal



Friction lock

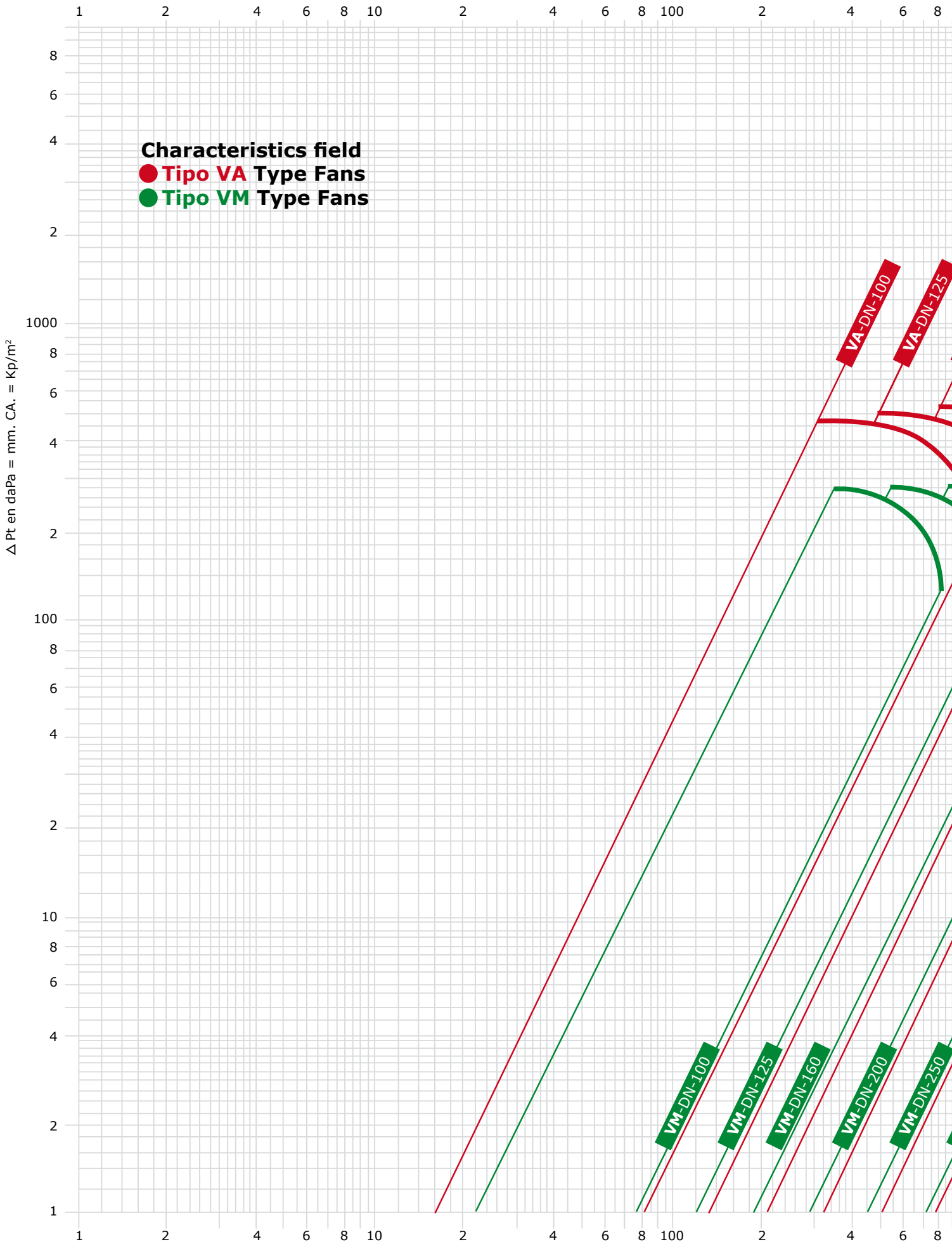


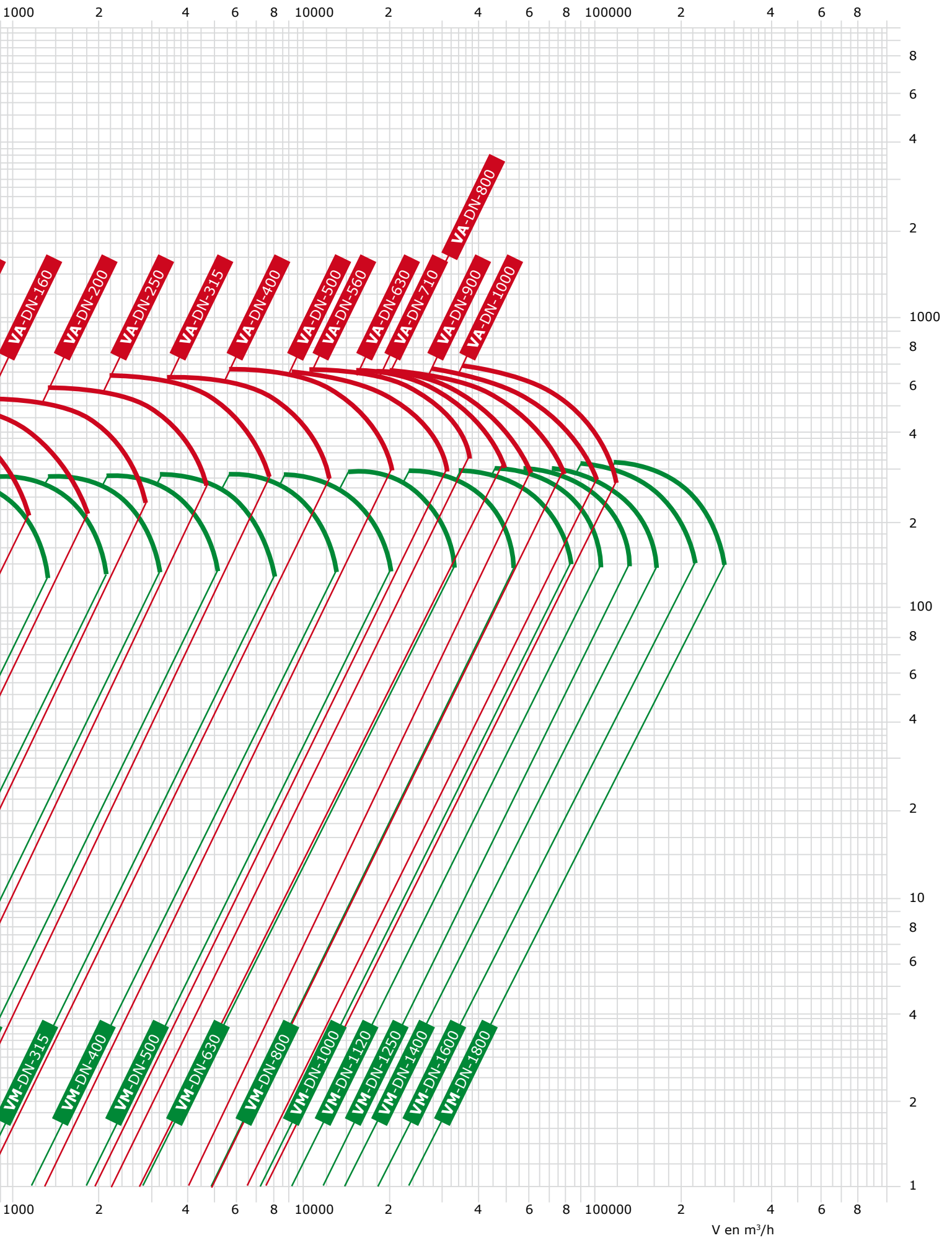
**Shaft seal.**

The fans are fitted with shaft seals, making them gas tight to conveyed gases. In the lower part of the housing there is a valve for the draining of condensates.

## Fan selection.

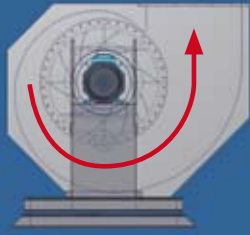
This table represents the two VM and VA series, which allows the selection, depending on the required flow and pressure, of the most appropriate model for each case with the utmost simplicity.





PPA manufactures their fans in several geometrical arrangements depending on its rotation and position. The rotation direction always viewed from the drive side.

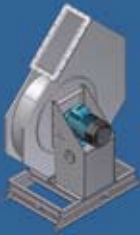
The measurement of the angle is made in the rotation direction, being the starting point (0° position), the highest point above the vertical line.



LG Rotation



0° Position



45° Position



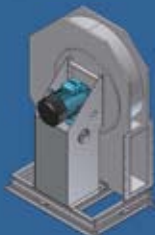
90° Position



135° Position



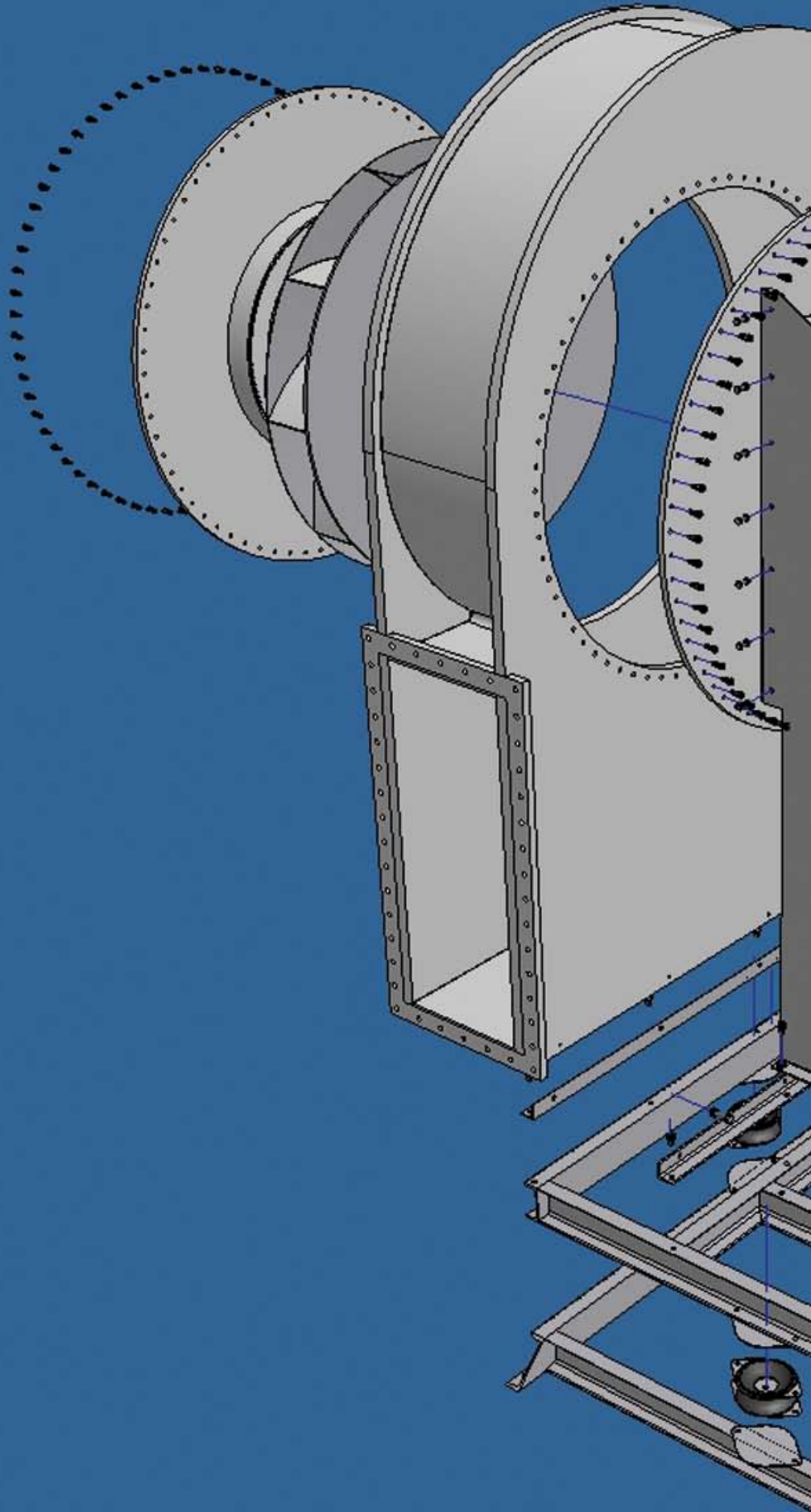
180° Position

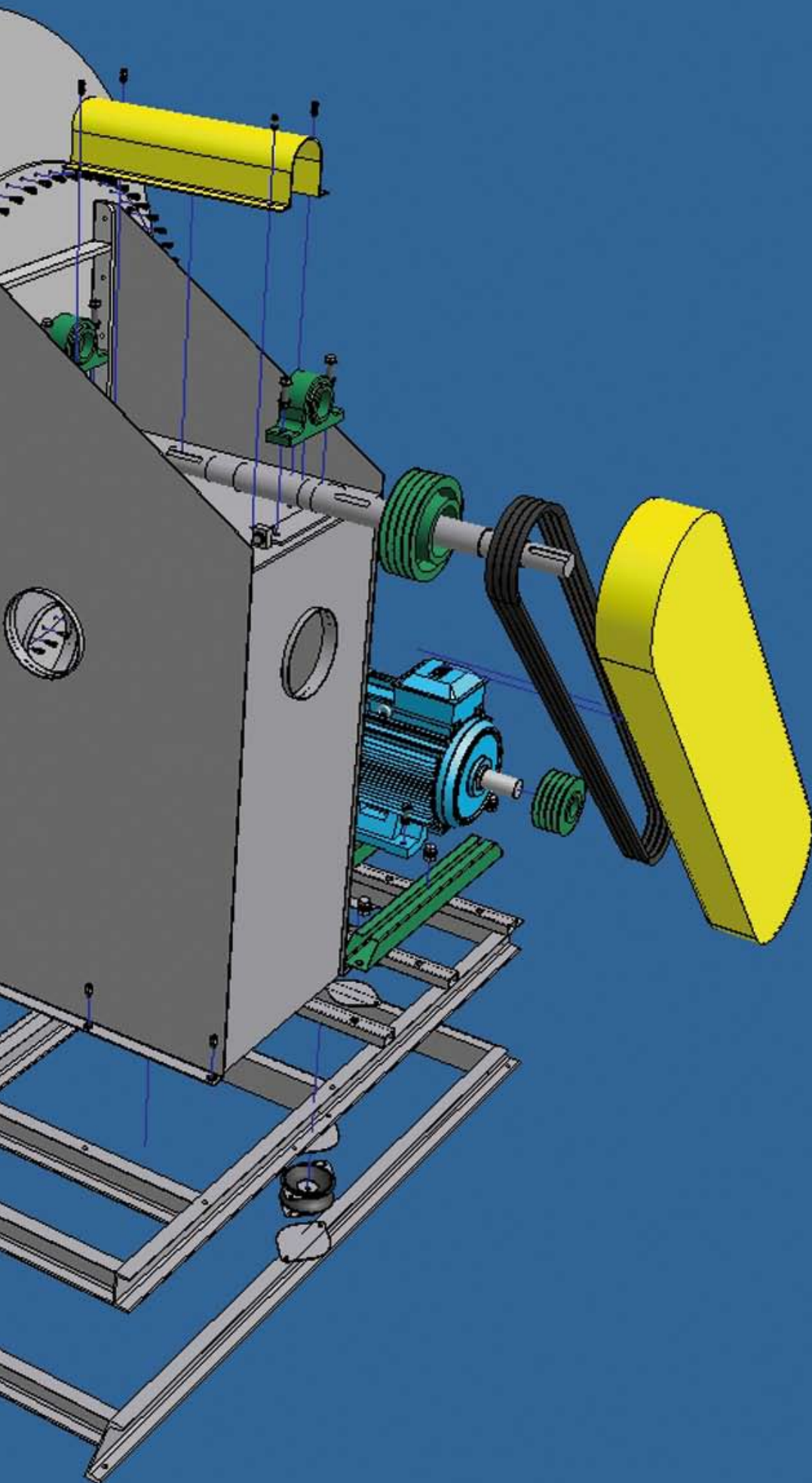


270° Position



315° Position

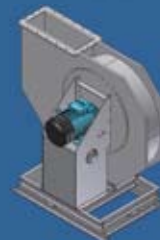




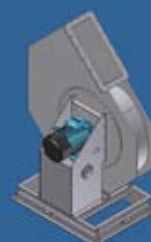
RD Rotation



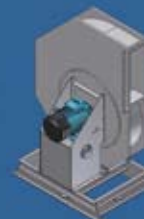
0° Position



45° Position



90° Position



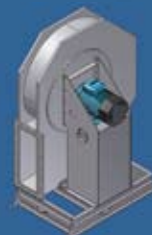
135° Position



180° Position



270° Position



315° Position





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