Data Sheet 74.2

CYCLOFAN Type CF10, 15, 20 & 30

The Cimbria Cyclofan combines in one compact unit an exhaust fan and a highly efficient dust separating cyclone.

Applications
The Cimbria Cyclofan was initially developed to counteract the problems inherent in the air pollution caused by grain drying installations, but it has also proved useful in other instances of exhaust from machines or rooms with heavy dust concentration.

The Cyclofans are available in four models with different capacities:

Table 1: Models and Capacities

Type	Motor effect kW	Air Volume Nm³/h	Pressure Ps [mm WG]	Weight kg
CF10	7.5	13.000	75	346
CF15	11.0	16.000	75	373
CF20	15.0	23.000	75	530
CF30	22.0	30.000	75	590

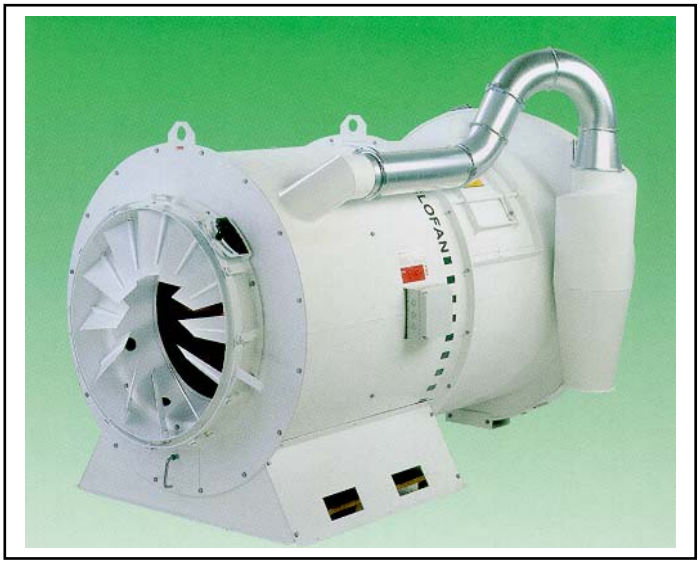
Function
The impeller employed in the Cyclofan is of the mixed flow type, which blows the air through vanes to further increase the spin effect initiated by the impeller. By the extremely intense rotation of the air, all dust particles are concentrated in a small fraction of the total air volume.
The dust-laden air is separated from the rest of the air in the separation part of the cyclofan. The dust is separated from the air in the minicyclone and the air is returned to the suction side of the Cyclofan. A small portion of the dust will remain in the air, which is the reason for another recirculation of the air to allow a second dust separation.

Efficiency
The Danish institute “Bioteknisk Institut” has issued a test report with the Cyclofan performance separating grain dust from dust-laden air. The test shows a dust separation of up to more than 98% - a remarkable high separation compared to conventional fans and cyclones.
To obtain the most efficient dust separation we recommend the use of a Cimbria air lock valve after the mini cyclone to ensure airtight dust discharge.

Energy Consumption
The power consumption is considerably less than required for conventional cyclone and fan systems of equivalent efficiency.

Energy Saving Air Regulation
The Cyclofan is supplied with an air volume regulator, type Varifan. The Varifan is made of adjustable guide plates placed as a rosette. The Varifan is placed in the inlet end of the Cyclofan. It regulates the air volume and reduces the energy consumption with lowered capacity.

Flexibility
The Cyclofan can be installed both vertically and horizontally, as the position has no effect to the degree of separation.



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