

# TYPE CF10, 15, 20 & 30

## GENERAL

Brand	Cimbria
Designation	CycloFan
Model	CF10, CF15, CF20 & CF30
Use	Industry
Application	Moving air within a duct in large-volume dust collection systems

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 Nm <sup>3</sup> /h	Pressure PS [Pascal]	Weight kg
CF10	7.5	13.000	750	346
CF15	11.0	16.000	750	373
CF20	15.0	23.000	750	530
CF30	22.0	30.000	750	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

Dust separation efficiency above 90%, depending on dust characteristics.

## 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.



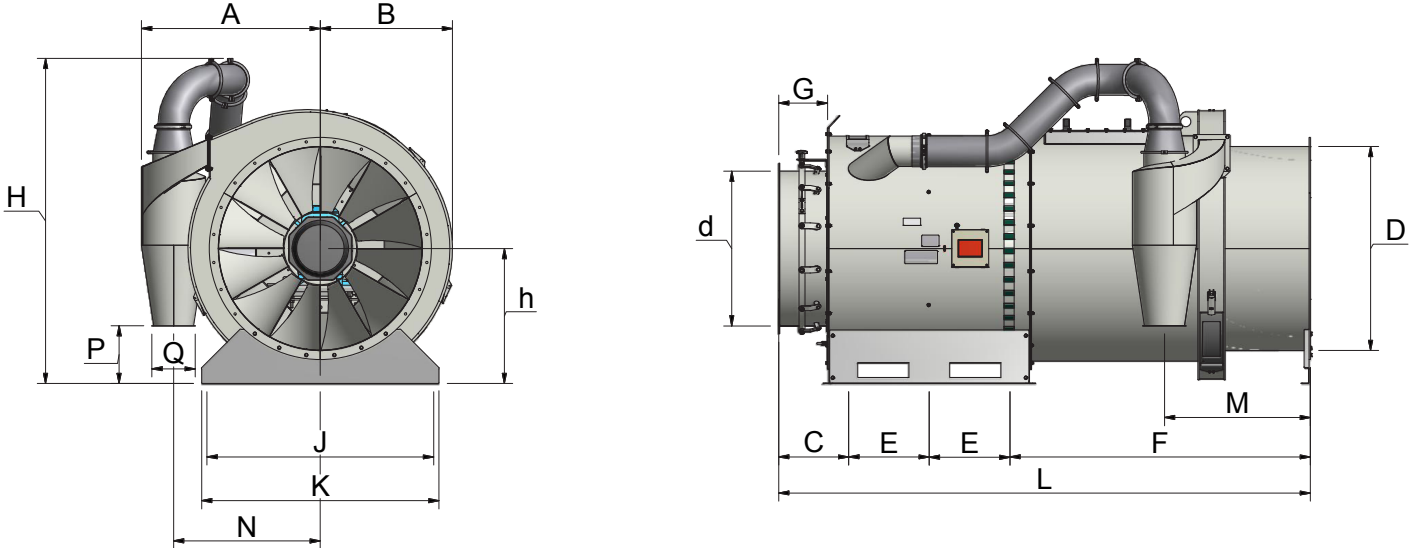


**CYCLOFAN**

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## TECHNICAL DATA

Figure 1: Measurements



Type	A	B	C	d	D	E	F	G	h	H	J	K	L	M*	N	P	Q
CF10/15	805	570	222.5	ø600	ø850	300	1402	150	590	1470	950	990	2224.5	218	647	158.5	ø200
CF20/30	875	645	337.5	ø750	ø1000	400	1462.5	240	660	1590	1120	1160	2600	253.5	716	279	ø200

\* Depending on Mini Cyclon

### Assembly

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

### Noise Level

Compared to an ordinary fan, with a similar capacity and a static pressure that allows connection of a cyclone, the CycloFan is relatively silent.

Further noise reduction to comply with local regulations can be achieved by mounting a Cimbria silencer.

### Altitude above Sea Level

As other fans the capacity of the CycloFan is also dependent on the pressure. Operation in altitudes above 500 meters will reduce the capacity of the CycloFan. If this is the case, then please contact Cimbria for further information.

### Capacity curves

Capacity curves of the 4 models of CycloFans are shown in diagrams 1.

Table 1: Noise level dB(A)

Type	63	125	250	500	1K	2K	4K	8K
CF10	70	81	84	91	93	93	84	76
CF15	71	82	86	93	94	92	86	78
CF20	73	86	92	98	102	100	93	84
CF30	82	93	101	104	102	102	97	88

Diagram 1:

