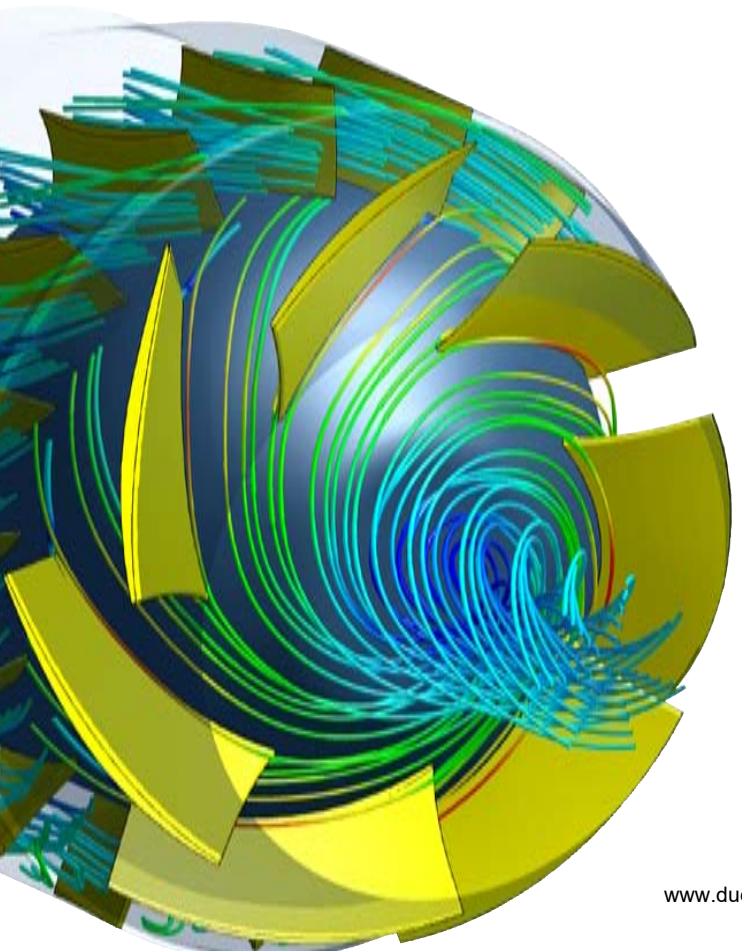
ETALINE – The energy saving fan

Saves Energy · Saves Space · Saves Money

Responsibility for man and nature



ETALINE saves Energy

ETALINE is the first fundamental innovation in new ventilator product development in decades. The development goal was, through effective aerodynamics, reduce the energy consumption of the fan. The R&D was with intense use of advanced CFD (Computational Fluid Dynamics) software. The implementation of the calculation results made new design elements and manufacturing methods for the ventilators necessary.

ETALINE in its range of fans is with the **highest efficiency** and thus with the **lowest power consumption** on the market!

Please compare!

The main design elements:

- **Rotor with adjoining stator**
  Unlike normal low pressure fans ETALINE has a fixed stator, which at rotor outlet converts unwanted turbulence into usable static pressure. This leads to a significant pressure and efficiency increase.

Rising energy and raw material prices are driving inflation and jeopardizing prosperity and the social certitude of broad population classes. In addition, the protection of our environment requires major efforts in saving energy and raw materials.

These global challenges require new products that use significantly less energy and raw material resources, which are becoming increasingly scarce.

The objectives for commencing development were to clearly reduce energy and raw material consumption of ventilators through significantly improved aerodynamics as opposed to other existing solutions.

ETALINE - Pure efficiency

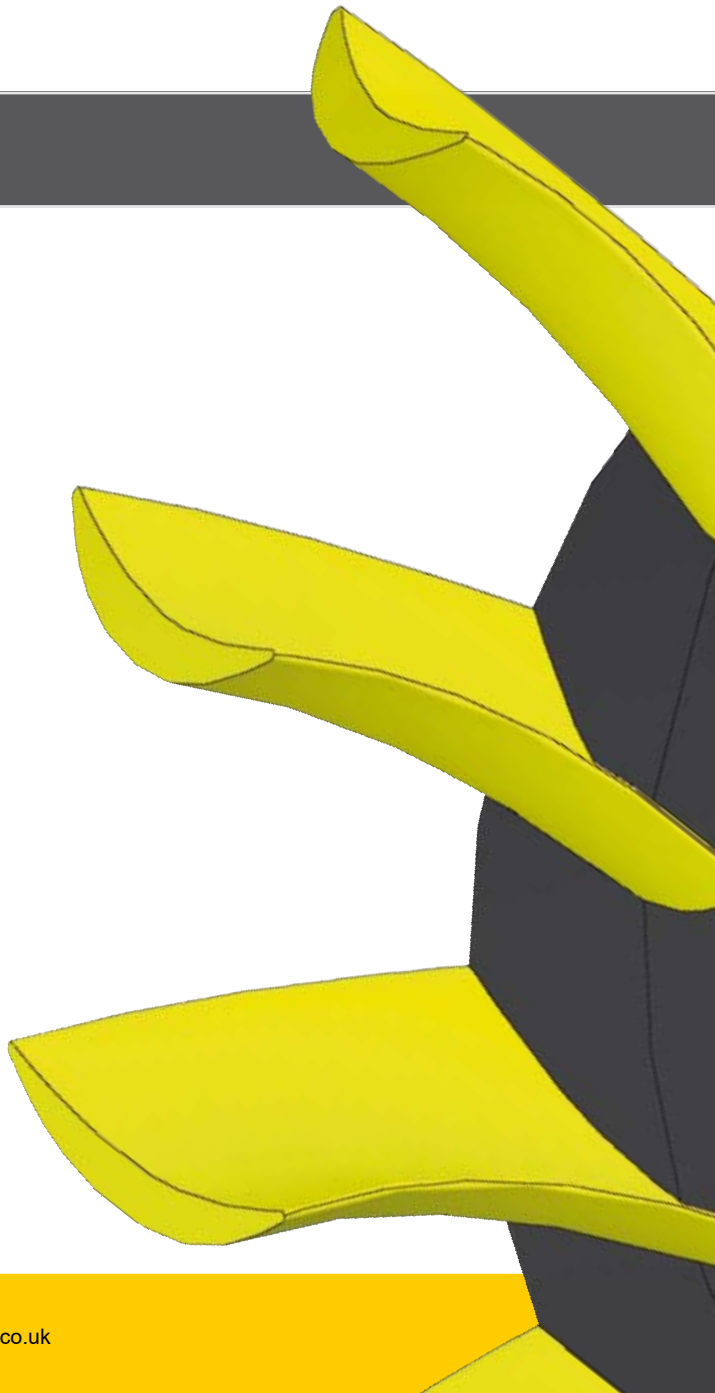
Three-dimensional, curved blades

ETALINE is the first ventilator in its performance segment with real, three-dimensionally shaped rotor and stator blades. This makes it possible for the rotor and stator to be ventilated correctly. The pressure profile in the blade surface can also be designed significantly more effectively and without loss.

Continuous meridian channel

The air stream always flows in the ventilator so that no loss-making displacements can form. The drive motors are housed in the stator hub, without disruptive influence on the aerodynamics of the rotor and protected from contamination.

All conventional motors can be used. Voltage and frequency controllable AC motors and EC motors. The combination with different drive motors and the high aerodynamic efficiency of ETALINE sets new benchmarks for energy saving and efficiency.



ETALINE - Lightweight and uncomplicated

ETALINE saves Space

The highly efficient, aerodynamic design also achieves high performance density. Therefore, the outer dimensions of the ventilator are equal to the connection diameter. When used as an INLINE ventilator, no additional installation space is required and it is aesthetically attractive if installed in full view.

Compact dimensions are becoming increasingly important in times of explosive raw material and energy prices. Reduced use of valuable raw materials and lower transport volume.

Smaller motor dimensions due to very high efficiency, lower material use due to high performance density and the use of saltwater-proof aluminium alloy (from model 400 mm) make ETALINE a „lightweight“ and significantly facilitates installation.

ETALINE is Complete

ETALINE is an Inline Tube Fan designed for direct installation to a duct system.

Compared to conventional fans, whether forward or backward curved, ETALINE requires no additional housing. Thus there are no additional mounting pressure losses or expenses for a housing.

On the contrary, via uniform, turbulence free airflow through a very efficient working stator, the pressure losses in adjoining parts are lower.

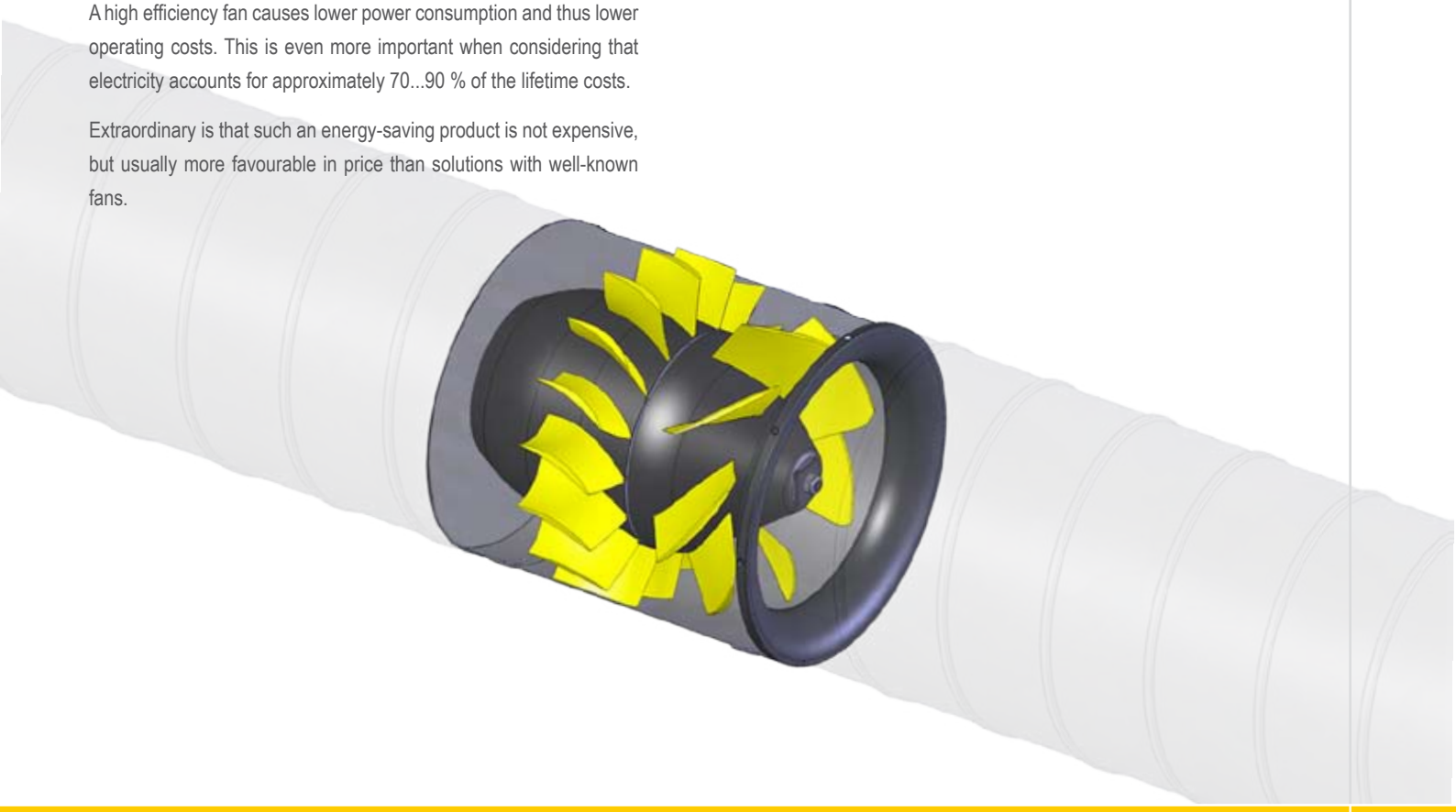
Two ETALINE in a distance of only 20% of duct diameter in series will achieve exactly twice the pressure build-up with unchanged high fan efficiency.

ETALINE - Is cost effective

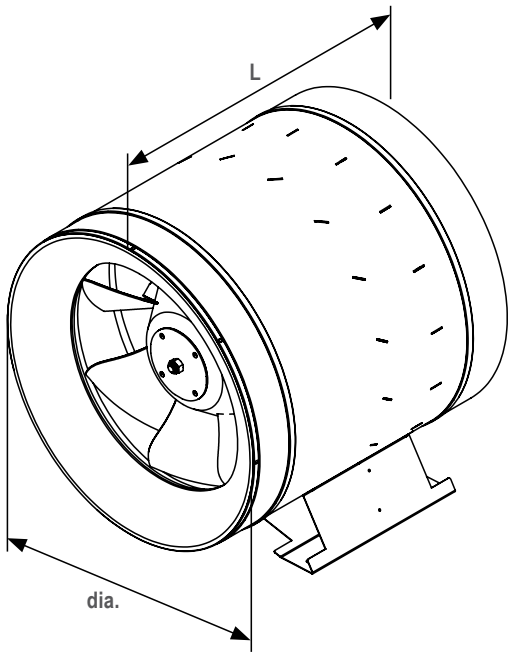
ETALINE saves Money

A high efficiency fan causes lower power consumption and thus lower operating costs. This is even more important when considering that electricity accounts for approximately 70...90 % of the lifetime costs.

Extraordinary is that such an energy-saving product is not expensive, but usually more favourable in price than solutions with well-known fans.



Over a wide range the ETALINE has three different types of drive motors available. Thus, you have the possibility for selecting the optimal fan for your application. Common to all versions is a very high aerodynamic efficiency of the fan and the absolute top position in total efficiency and thus in energy savings.

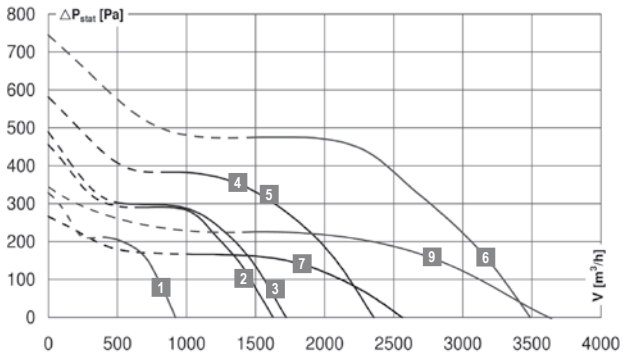


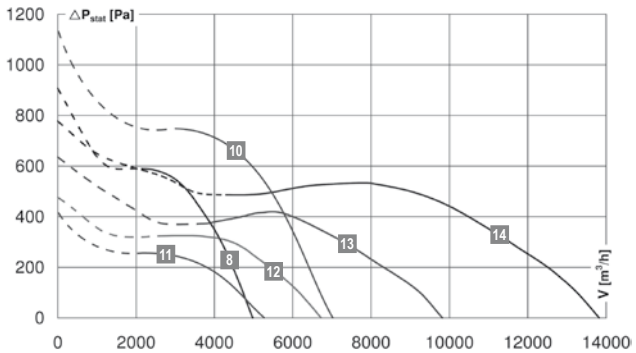
ETALINE with voltage controllable motors

These fans can be connected directly to a 230 V/50 Hz mains supply, or with a transformer for variable speed regulation.

Type		Motor Characteristic			total efficiency		Dimensions		Weight	Available
		U [V]	P_1 [W]	I_{max} [A]	η_{fa} [%]	η_t [%]	Ø dia. [mm]	L [mm]	[kg]	
EL 200 E2 01	1	230V ~	100	0,5	33,0	38,2	201	225	2,9	Available
EL 250 E2 06	2	230V ~	160	0,8	46,9	52,9	250	215	5,3	Available
EL 250 E2 01	3	230V ~	180	1	44,7	48,8	250	278	6,4	Available
EL 280 E2 02	4	230V ~	270	1,6	50,6	54,8	281	308	8,3	Available
EL 315 E2 03	5	230V ~	270	1,6	50,6	54,8	315	308	8,4	Available
EL 315 E2 01	6	230V ~	520	3,2	51,3	55,7	315	351	14,2	Available
EL 355 E4 01	7	230V ~	160	1,2	44,4	48,7	354	396	13,5	Available
EL 355 E2 01	8	230V ~	960	5,4	50,6	55,0	354	396	17,3	Available
EL 400 E4 01[1]	9	230V ~	290	2,0	44,0	48,0	403	417	16,0	Feb. 09
EL 400 E2 01[1]	10	230V ~	1750	10,0	50,0	55,0	403	417	22,0	March 09
EL 450 E4 01[1]	11	230V ~	480	3,5	44,6	48,3	453	467	19,3	Nov. 08
EL 500 E4 01	12	230V ~	700	3,7	49,8	53,9	504	515	23,2	Available
EL 560 E4 01[1]	13	230V ~	1120	7,3	52,5	56,4	564	582	37,2	Dec. 08
EL 630 E4 01[1]	14	230V ~	2130	11,5	56,7	61,2	634	655	43,5	Dec. 08

[1] Preliminary Technical Data





ETALINE with frequency controllable motors

These fans are designed for operation with frequency converters. The sizes 560, 630 and 710 can also be connected directly to 400 V/50 Hz three phase operation. Through frequency control the efficiency in partial load is also very high.

Type		Motor Characteristic			total efficiency		Dimensions		Weight	Available
		U [V]	P_1 [W]	I_{max} [A]	η_{fa} [%]	η_t [%]	Ø dia. [mm]	L [mm]	[kg]	
EL 315 D2 01	15	230V 3~Y	935	3,3	56,7	60,9	315	355	15,5	Available
EL 355 D2 01	16	230V 3~Y	920	3,2	55,5	59,7	354	396	17,5	Available
EL 400 D4 01[1]	17	230V 3~Y	750	2,6	55,0	61,0	403	417	16,0	Feb. 09
EL 450 D4 01[1]	18	230V 3~Y	1200	4,2	56,5	61,3	453	467	18,8	Nov. 08
EL 500 D4 01	19	230V 3~Y	2030	7,1	60,0	64,5	504	515	23,6	Available
EL 560 D4 01[1]	20	400 ~	1550	4,0	57,5	63,0	564	582	29,0	Dec. 08
EL 630 D4 01	21	400 ~	2745	5,4	62,5	67,2	634	654	39,0	Available
EL 710 D4 01[1]	22	400 ~	4100	14,4	63,0	69,0	714	732	48,0	Feb. 09

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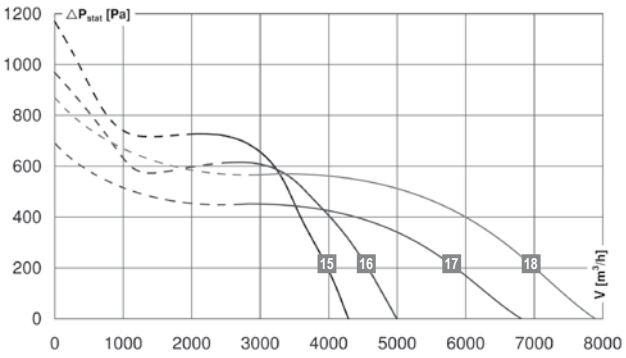

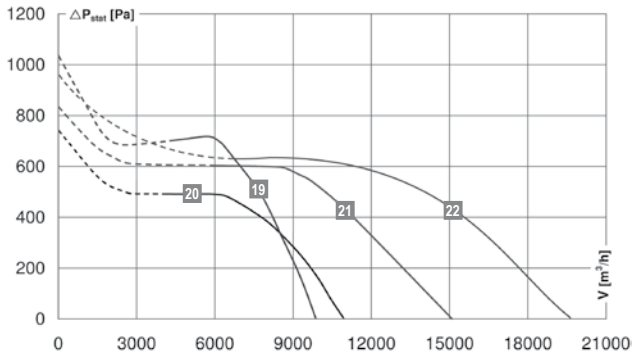

ETALINE with EC motors

ETALINE with EC motors are by far the most energy saving fans on the market. Both in full and partial load operation, the fan total efficiency is very high.

Type		Motor Characteristic			total efficiency		Dimensions		Weight	Available
		U [V]	P_1 [W]	I_{max} [A]	η_{fa} [%]	η_t [%]	Ø dia. [mm]	L [mm]	[kg]	
EL 500 EC 01[1]	23	400 ~	1850	3,3	69,1	75,0	504	515	27,5	Nov. 08
EL 560 EC 01[1]	24	400 ~	2150	3,8	69,0	75,0	564	582	31,0	
EL 630 EC 01[1]	25	400 ~	2850	4,9	69,9	75,5	634	654	36,8	Nov. 08
EL 710 EC 01[1]	26	400 ~	3420	6,1	69,0	75,0	714	732	43,0	

[1] Preliminary Technical Data