MagFan®

World leader in fan efficiency

DACS

INNOVATION IN VENTILATION

MagFan — world leader in fan efficiency

MagFan1™ MagFan3™ MagFan5™

MagFan outperforms all other fans

MagFan is the world leader in fan efficiency. No matter the version you choose they all offer unrivalled performance, efficiency, and service life.

MagFan owes its efficiency to much more than just the high efficiency motors. More than anything else, the very pronounced efficiency advantage stems from the aeromechanics applied in the development of MagFan.

This becomes quite evident when comparing capacities and efficiencies against other makes of similar size fans. Without exception, MagFan outperforms all other fans!

MagFan is the answer

MagFan is widely used in all types of livestock buildings, in greenhouses, and industrial applications. Wherever air needs to be moved efficiently, MagFan is the answer.

One unique concept

At first glance there is no visible difference between the three versions of MagFan.

MagFan1, MagFan3 and MagFan5 all make use of the same housing. The only differences lie in the motor technology used and the using of different impellers. One unique concept — three different fans.

Aerodynamics make the difference

First and foremost, remember that a fan with superior aerodynamics will always be the most efficient fan no matter the speed it operates at. So, all the way from minimum speed to full speed, the aerodynamics play the most important role in fan performance and efficiency.

This is exactly the reason why MagFan consistently outperforms all other fans ever tested at Bess Lab, University of Illinois. By a wide margin!



Careful design leads to aerodynamic benefits

Optimized to perfection

With strict focus on aerodynamics in the design phase, MagFan has been optimized to perfection. The air entering the fan meets no restrictions and the discharge cone leads the air gently from the fan. The motor and impeller hub designs bring minimum restrictions to airflow. The impeller blades are carefully designed and tested to perfection.

These little but important details ensure high airflow rates and unsurpassed energy efficiency.



Perfectly designed impeller blades



Rounded and smooth impeller hub



Optimized housing



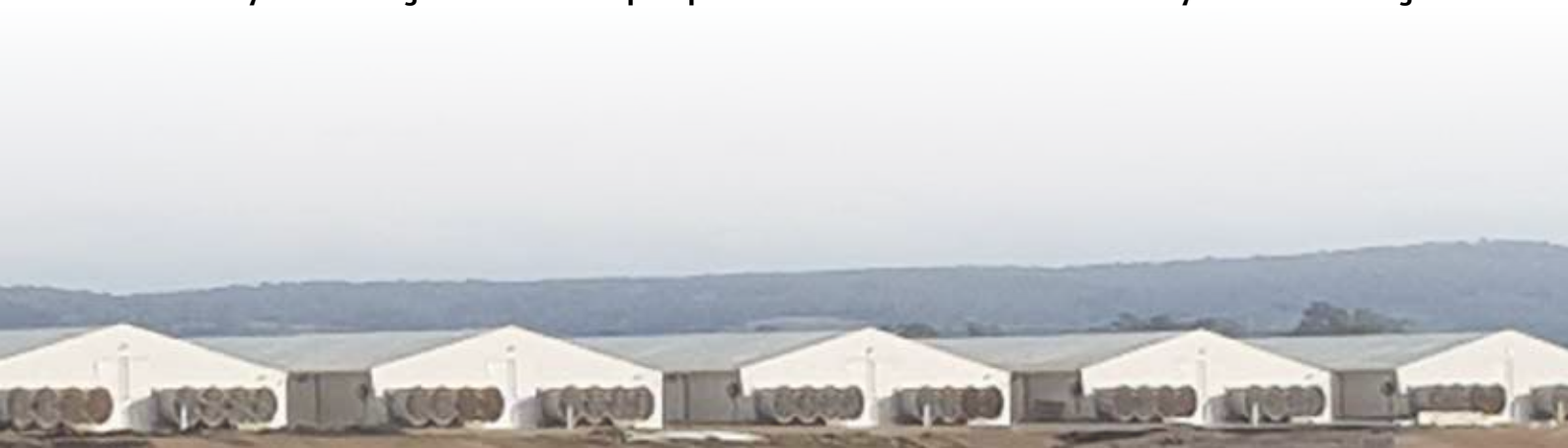
Carefully rounded edges



Super optimized air intake area



Aerodynamic motor design



Choosing the right MagFan

Applications

The MagFan is a very versatile fan, adaptable to a large variety of applications. Choosing the right MagFan for a given application involves determining how often the fans will run at reduced speed, but it also involves determining at what static pressure the fan will be operating.

Airflow is essential

Where outside temperatures fluctuate diurnally and/or seasonally, or where the production has variable heat production and variable temperature setpoints from start to finish (like in a building with broilers), the fan speed will vary, and the savings obtained by speed controlling will be significant. Likewise, if high static pressures are needed (like in buildings with cages or filters), the ability to produce airflow at high pressure is essential.

No matter the application, MagFan is the ideal choice because of the high efficiency and the ability to produce high airspeeds even in buildings where static pressure exceeds 100 Pa (0.4'' WC).

System integration

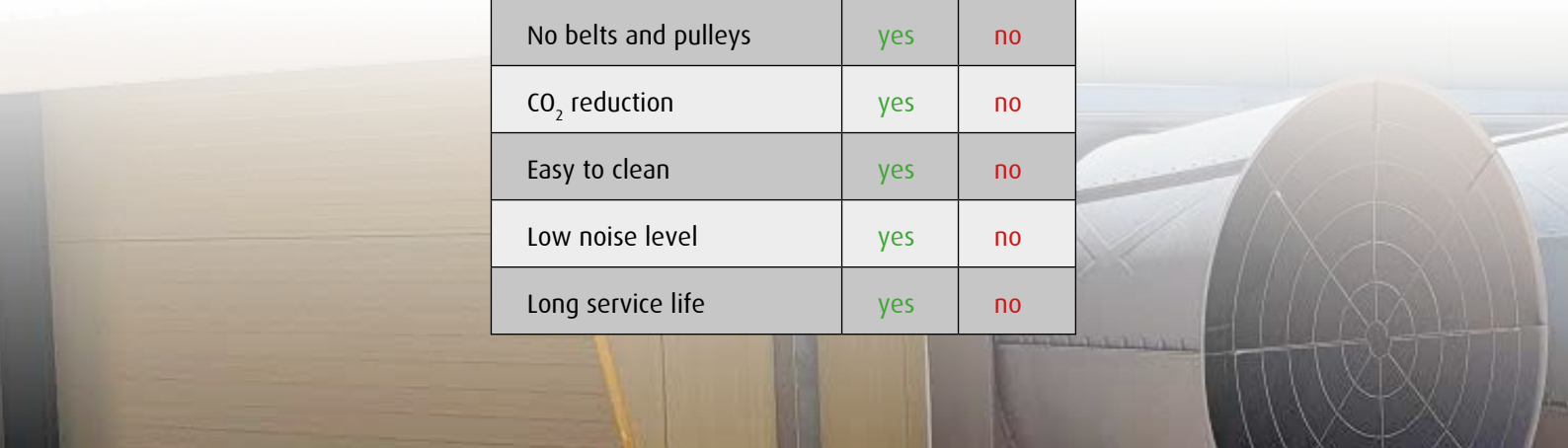
MagFan integrates seamlessly with all climate control systems and can be combined with any type of inlets. No matter how the ventilation system is designed, the superior efficiency and performance of MagFan will always lead to huge savings.

Distinct advantages

As can be seen in the below table, the direct drive MagFan (impeller mounts directly on the motor shaft) has distinct advantages when compared to traditional wall mount fans. Advantages that bring a much better return on investment.



High performance	yes	no
High energy efficiency	yes	no
High pressure stability	yes	no
Corrosion-free	yes	no
Airtight shutter	yes	yes
Emergency opening	yes	no
Fits all applications	yes	no
Installation cost	yes	no
Maintenance-free	yes	no
Return on investment (ROI)	yes	no
No belts and pulleys	yes	no
CO_2 reduction	yes	no
Easy to clean	yes	no
Low noise level	yes	no
Long service life	yes	no



Setting new standards

MagFan1 — our ON/OFF fan

MagFan1 is our ON/OFF fan. It is a direct drive fan, so no belts and pulleys — hence no maintenance. Because of its outstanding efficiency, capacity and pressure performance, the MagFan1 is the best ON/OFF controlled wall fan ever tested at Bess Lab, University of Illinois.

Higher energy efficiency

MagFan1 can also be speed controlled. Any standard variable frequency drive (VFD) will work. The VFD speed controlling allows for a high energy efficiency of the MagFan1, compared to versions offered by our competitors.

MagFan1, 50 Hz, Bess Lab test data

Static pressure		Airflow		Energy consumption	
” WC	Pa	Cfm	m³/h	Cfm/Watt	W/1 000m³/h
0.00	0	40 900	69 500	28.7	21
0.05	12	39 000	66 300	25.4	23
0.10	25	36 900	62 700	22.4	26
0.15	37	35 000	59 500	20.0	29
0.20	50	33 200	56 400	18.1	33
0.25	62	30 800	52 300	16.0	37
0.30	75	28 600	48 500	14.3	41
0.35	87	25 900	44 000	12.8	46
0.40	100	22 200	37 700	10.9	54

Bess Lab test report # 18465

MagFan1, 60 Hz, Bess Lab test data

Static pressure		Airflow		Energy consumption	
” WC	Pa	Cfm	m³/h	Cfm/Watt	W/1 000m³/h
0.00	0	43 300	73 500	27.0	22
0.05	12	41 300	70 100	23.9	25
0.10	25	39 100	66 400	21.1	28
0.15	37	36 800	62 500	18.9	31
0.20	50	34 300	58 400	17.0	35
0.25	62	32 000	54 300	15.4	38
0.30	75	29 400	49 900	13.9	42
0.35	87	26 000	44 200	12.4	47
0.40	100	20 000	33 900	10.0	59

Bess Lab test report # 22616



MagFan3 and MagFan5 — an upgrade that rocks!

On average, across all duty points, the MagFan3 and MagFan5 are about 10% more efficient than their predecessors. But there is much more to it than the efficiency improvements.

Whether you choose the three-blade MagFan3 or the five-blade MagFan5, you get a fan capable of delivering very high airflows even at extreme static pressures — and deliver that raw performance and extreme efficiency year after year, without any maintenance other than ordinary cleaning.

Equally important, due to the new impeller design, the fans now cover a wider operation range, with minimum speed settings of 160 rpm and maximum speeds of up to 900 rpm. This allows for a much more precise airflow control, and the redesigned impeller maintains full headwind stability even at very low rpm operation.

Unique, protected features

The new MagFans introduce a long list of first in the business features, and no less than three new patents have been applied for:

- Increased performance and efficiency across the entire range. First fan ever to do over 30cfm/W at 30,000 cfm/0.1”. Tested at Bess Lab
- One compact (pat. pend) high output permanent magnet (PM) motor. Upgraded to IP66/IP4X with goretex breather plug, and running significantly cooler than any other motor on the market
- Twice the torque of other PM motors of equivalent frame size at low rpm and three to four times as much torque as BLDC/EC motors of equivalent frame size at low rpm
- A choice of 3 blade and 5 blade impellers for superior efficiency and extreme performance even at pressures exceeding 100Pa/0.4’’ WC

MagFan3



Capacity: Up to 79 700 m³/h (46 900 cfm)
Pressure: Up to 75 Pa (0.30” WC)
Air flow ratio: 0.85

MagFan5



Capacity: Up to 77 200 m³/h (45 400 cfm)
Pressure: Up to 137 Pa (0.55” WC)
Air flow ratio: 0.91

MagFan3 — for floor kept animals

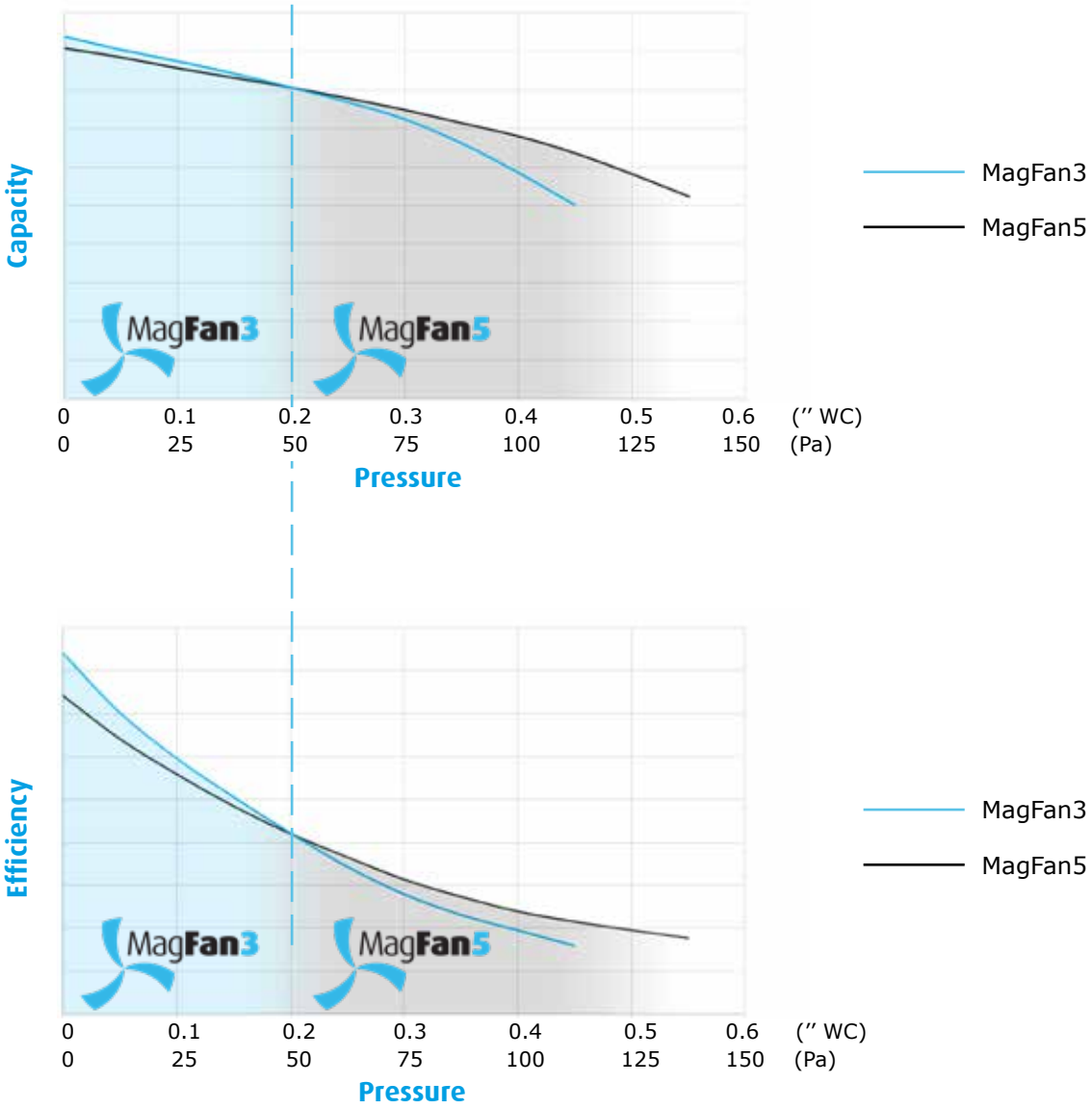
When we designed the MagFan3, our focus was to make a high capacity and high efficiency fan targeting buildings where static pressures seldom exceed 50 Pa (0.2'' WC). This means that the MagFan3 is the ideal choice for houses with floor kept animals.

MagFan5 — extreme static pressures

The 5-blade impeller MagFan5 is a high-capacity fan that offers high airflows even at extreme static pressures. The MagFan5 is also a high efficiency fan that outperforms all other fans with same characteristics. The MagFan5 generates high airflow at static pressures up to 137 Pa (0.55'' WC) so it is the only right choice for cage facilities and filtered buildings where high static pressures are most pronounced during the production cycle.

Breaking point

As seen from the below graphs, the MagFan3 (blue line) has the highest capacity and is the most efficient of the two up until 50 Pa (0.2'' WC) The MagFan3 can easily produce airflows at pressures up to 75 Pa (0.30'' WC), but as can also be seen from 50 Pa (0.2'' WC) and up to 137 Pa (0.55'' WC) the MagFan5 has a higher capacity and a higher efficiency. This means that the "breaking point" between the MagFan3 and MagFan5 is at 50 Pa (0.2'' WC).



Game-changing performance

Always a winner

MagFan, in all its versions, is the best ever tested fan at Bess Lab, University of Illinois, in terms of efficiency, capacity, and air flow ratio (AFR). No other fan has been such a significant game changer in the market for large fans and with its performance data, MagFan will always be a winner when compared to other brands.

Efficiency and sustainable production

The direct drive technology, the highly aerodynamic body and motor/impeller construction add to its qualities and makes the MagFan3 the only right choice where energy efficiency and sustainable production is in focus.
As can be seen below, the three-blade impeller provides outstanding efficiency and performance in the low to medium pressure range.

MagFan3, Bess Lab test data (metric)

Signal (approx.)	RPM	@ 0 Pa		@ 12.5 Pa		@ 25 Pa		@ 37.5 Pa		@ 50 Pa		@ 62.5 Pa		@ 75 Pa		Bess Lab Test #
		m^3/h	Watt/ 1000 m^3/h	m^3/h	Watt/ 1000 m^3/h	m^3/h	Watt/ 1000 m^3/h	m^3/h	Watt/ 1000 m^3/h	m^3/h	Watt/ 1000 m^3/h	m^3/h	Watt/ 1000 m^3/h	m^3/h	Watt/ 1000 m^3/h	
100%	910*	79 700	24	76 800	27	74 300	30	70 000	32	66 200	35	63 300	37	59 300	41	22 564
90%	820	72 400	19	69 200	21	64 500	25	60 400	28	57 400	30	53 200	34	48 400	37	22 591
80%	730	64 600	15	60 300	18	55 500	21	51 200	24	47 000	27	41 600	31	24 400	46	22 594
70%	635	55 400	12	50 200	14	44 500	17	39 700	20	32 400	25					22 595
60%	550	50 300	9	43 900	12	38 200	15	30 500	19							23 028
50%	450	40 700	7	33 100	9	23 900	13									23 028

MagFan3, Bess Lab test data (imperial)

Signal (approx.)	RPM	@ 0.0" SP		@ 0.05" SP		@ 0.10" SP		@ 0.15" SP		@ 0.20" SP		@ 0.25" SP		@ 0.3" SP		Bess Lab Test #
		CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	
100%	910*	46 900	24.7	45 200	21.8	43 700	19.6	41 200	18.5	39 000	16.9	37 200	15.7	34 900	14.4	22 564
90%	820	42 600	30.7	40 700	27.6	37 900	23.7	35 500	21.1	33 800	19.4	31 300	17.5	28 500	15.8	22 591
80%	730	38 000	38.7	35 500	33.2	32 700	28.2	30 200	24.7	27 600	21.9	24 500	19.1	14 400	12.8	22 594
70%	635	32 600	50.4	29 500	41.1	26 200	34.0	23 400	28.9	19 100	23.6					22 595
60%	550	29 600	64.3	25 900	49.0	22 500	39.8	17 900	31.3							23 028
50%	450	24 000	90.5	19 500	63.1	14 000	43.6									23 028

* 3-phase MagDrive inverter only, application specific

Above Bess lab wind tunnel capacity; tested in DACS wind tunnel in accordance with ISO5801

Outside of pressure range at this RPM



MagFan3 comes with a state-of-the-art variable frequency drive (VFD), MagDrive

Attractive wherever high pressure is needed

MagFan5 — a five blade impeller MagFan

MagFan5 uses a 5-blade impeller, but other than that it is identical to MagFan3. It is designed for applications requiring pressure capacity of 50 to 137 Pa (0.2 to 0.55'' WC).

Increase overall efficiency and profitability

In large scale operations and HEPA filtered operations, static pressures often exceed 100 Pa (0.40'' WC). Above this point most other fans cannot produce air. In this high pressure regime MagFan5 outperforms the competition by a wide margin, while also providing unrivalled efficiency across the entire pressure range.

Because of the impressive performance of MagFan5, farmers can build up to 50% larger constructions and thereby increase overall efficiency and profitability.

MagFan5, Bess Lab test data (metric)

Signal (approx.)	RPM	@ 0 Pa		@ 25 Pa		@ 50 Pa		@ 75 Pa		@ 100 Pa		@ 125 Pa		@ 137.5 Pa		Bess Lab Test #
		m³/h	Watt/ 1000 m³/h	m³/h	Watt/ 1000 m³/h	m³/h	Watt/ 1000 m³/h	m³/h	Watt/ 1000 m³/h	m³/h	Watt/ 1000 m³/h	m³/h	Watt/ 1000 m³/h	m³/h	Watt/ 1000 m³/h	
100%	845*	77 200	24	72 400	30	68 500	36	63 500	42	57 800	50	49 400	60	44 600	66	22 572
90%	770	72 800	21	65 600	27	60 500	32	54 700	39	45 900	49	27 000	70			22 596
	750	69 700	20	63 500	26	58 500	31	52 100	38	42 600	48					22 576
80%	670	61 500	17	55 700	21	49 500	27	40 100	36							22 586
70%	585	57 700	14	51 100	20	43 900	26									23 029
60%	510	46 100	10	37 800	15	24 500	25									23 029
50%	435	39 400	7	29 100	13											23 029

MagFan5, Bess Lab test data (imperial)

Signal (approx.)	RPM	@ 0.0" SP		@ 0.10" SP		@ 0.20" SP		@ 0.30" SP		@ 0.40" SP		@ 0.50" SP		@ 0.55" SP		Bess Lab Test #
		CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	CFM	CFM/ Watt	
100%	845*	45 400	24.7	42 600	19.9	40 300	16.3	37 400	13.9	34 000	11.7	29 100	9.8	26 200	8.9	22 572
90%	770	42 800	27.7	38 600	21.9	35 600	18.1	32 200	15.0	27 000	11.9	15 900	7.6			22 596
	750	41 000	29.3	37 300	22.9	34 400	19.0	30 700	15.4	25 100	12.2					22 576
80%	670	36 200	35.6	32 800	27.4	29 100	21.6	23 600	16.4							22 586
70%	585	31 200	47.4	27 100	33.5	22 100	24.2									23 029
60%	510	27 100	61.4	22 300	39.4	14 400	23.7									23 029
50%	435	23 200	80.1	17 100	45.4											23 029

* 3-phase MagDrive inverter only, application specific

Above Bess lab wind tunnel capacity; tested in DACS wind tunnel in accordance with ISO5801

Outside of pressure range at this RPM



MagFan5 comes with a state-of-the-art variable frequency drive (VFD), MagDrive.

MagFan Short Cone

The MagFan Short Cone uses the same advanced aerodynamics and delivers the same premium efficiency found on the other MagFans.

The short discharge ring allows you to install these fans in places where space is limited, while maintaining world-class energy efficiency and performance. In fact, the MagFan SC version outperforms just about any full-size cone fan, the only exception being its own siblings, MagFan 3 and MagFan 5.

Use the MagFan SC where there is limited space, as an exhaust fan or inlet fan.

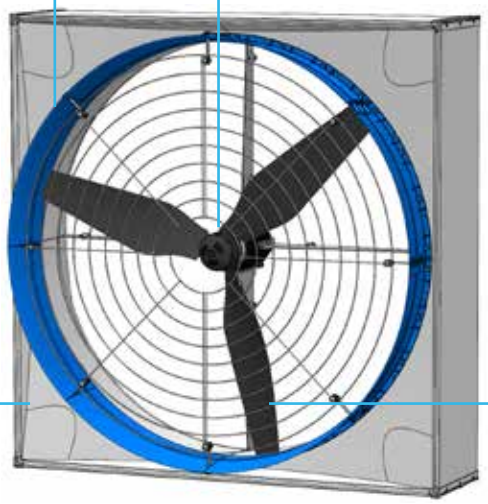
Or, use it as a circulation fan in dairy barns, warehouses, or any type of production facility, and you'll see far better air distribution, longer and wider throw, and a 50% reduction in energy consumption compared to the very best of the rest.

Discharge

- 8 sections for reduced shipping and easy installation
- Innovative discharge ring design increases performance and efficiency to a level far beyond that of box fans
- Rugged, corrosion-resistant UV stabilized poly
- Heat stabilized to withstand temperatures of 120°C/248°F

Motor, brackets and guards

- Single-/three-phase true VFD PM (IP66) 2.5 kW or 1.8 kW induction (IP55) motors available
- Smooth surface motors with no cooling fins provide high aerodynamic efficiency and eliminate dust buildup
- Corrosion resistant stainless steel 304 brackets, guards and hardware



Housing

- Injection moulded/ extruded impact resistant high-grade plastics with UV inhibitors
- Strong aluminium connector block at each motor bracket with M8 internal thread for connection of external frame, cables or chains (externals not included)
- Heat stabilized to withstand temperatures of 120°C/248°F
- 100% corrosion resistant

Impeller

- Balanced, precision injection moulded glass filled PP composite blades
- Poly-/precision-milled aluminium hub with integrated taper lock
- No tolerance issues and no risk to motor during installation
- Effortless installation with extreme clamping force
- Market leading efficiency and durability



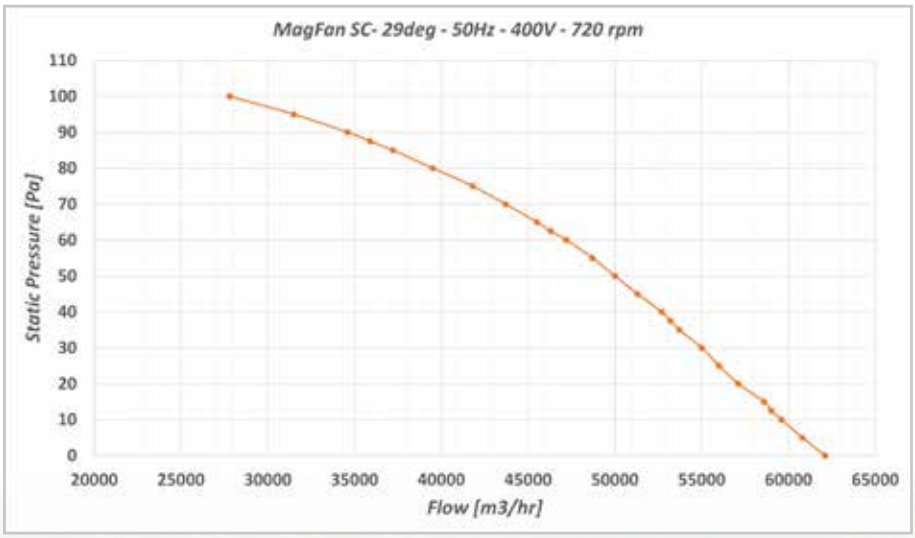
MagFan Short Cone

When you search for stirring fans, you want fans that throw not only far but also wide.

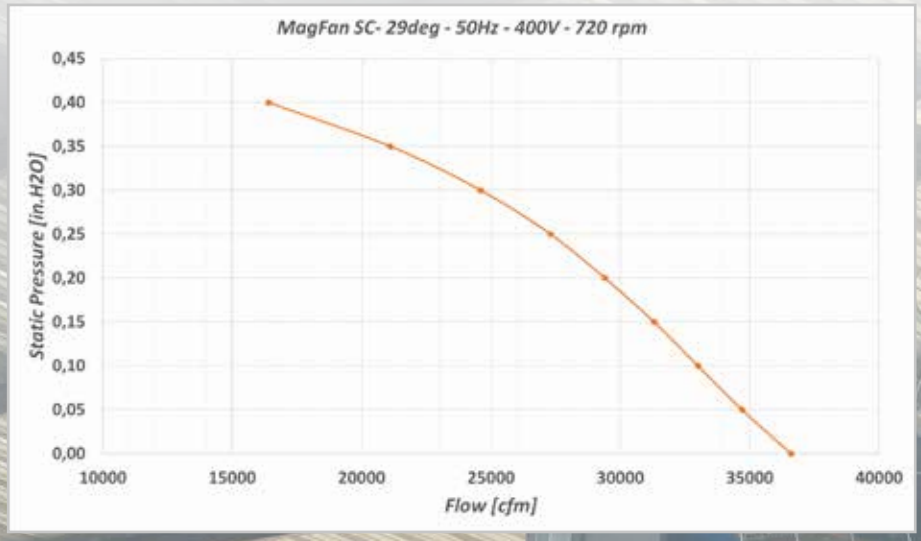
To achieve just that, we fitted MagFan SC in the stirring fan version with a different blade and a different pitch setting to force the air outward, rather than just forward.

The result is a 12 m / 40 ft wide and 24 m / 80 ft long coverage, with very high uniformity in airspeed across the entire area. And due to the unmatched total airflow of the fan, you can achieve very high airspeeds, or you can run the variable speed fan at moderate speeds to achieve extreme efficiency while maintaining a steady, cooling breeze across the entire distribution area.

Metric



Imperial



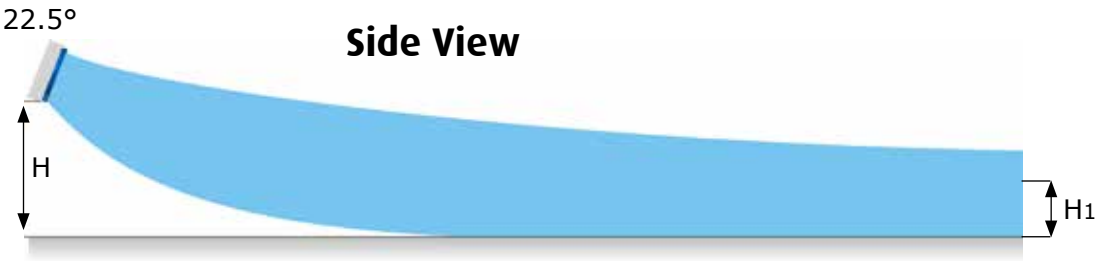


Shipping

- Precision manufactured for easy assembling
- Special packaging for safe and space-efficient shipping
- 300 unassembled fans per 40 ft high cube shipping container

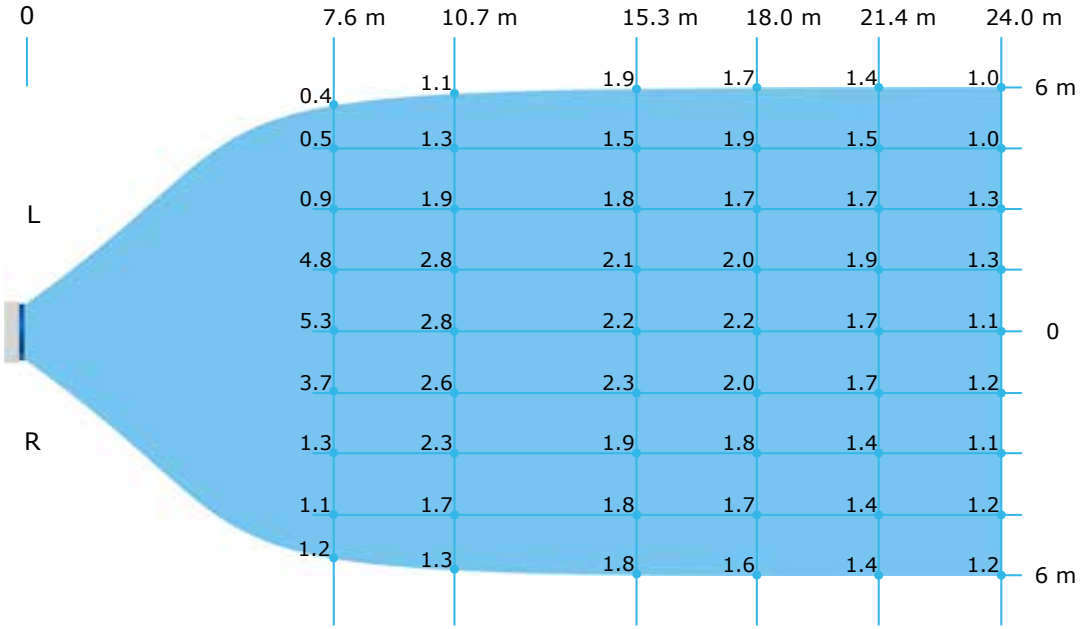
Short Cone – Air Speed Chart

Side View



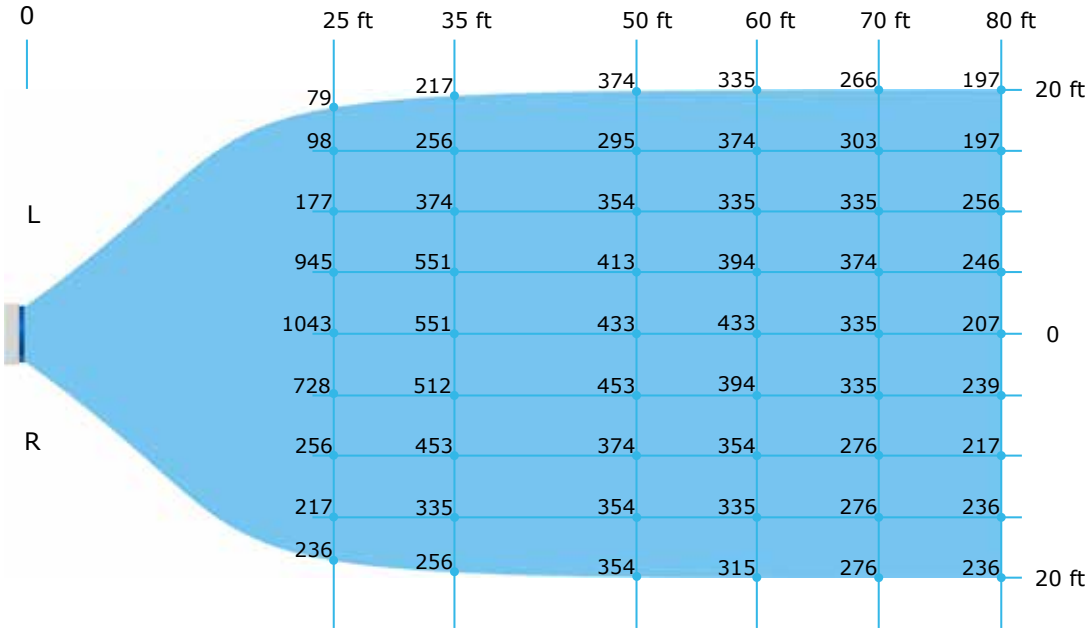
H: 3.35 m / 11 ft
H1: 1.10 m / 3.5 ft

Top View – Metric



Air speed
measured at H1 = 1.1 m
Fan speed: 850 rpm
Unit: m/s

Top View – Imperial



Air speed
measured at H1 = 3.5 ft
Fan speed: 850 rpm
Unit: ft/min

Installations all over the world


England


Indonesia


Colombia


Philippines


Myanmar


Australia


Malaysia


Argentina

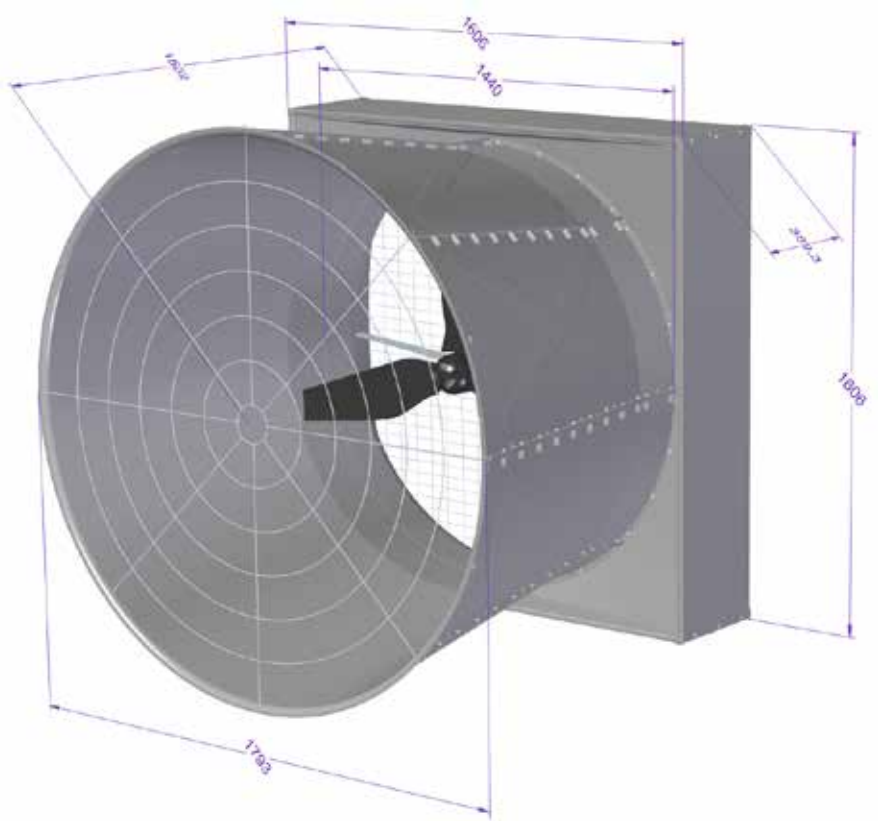

Canada


USA


Spain


Italy

MagFan — Technical specifications



Housing and cone	PP-HD, gray (RAL 7040) PVC, gray (RAL 7040)
Impeller blades	Material: Technofiber PP Tip clearance: 0.4” (10mm)
Brackets, guards	Stainless steel / AISI 304 / A2
Dimensions assembled	Weight: 90-120kg /200-250 lbs L × W × D (mm): See drawing Impeller diameter: 1430mm / 56.5”

	MagFan3	MagFan5	MagFan1
Variable Frequency Drive (VFD)	MagDrive – water-proof variable frequency drive (IP 66) Cos (phi) / power factor at full load: 0.99	MagDrive – water-proof variable frequency drive (IP 66) Cos (phi) / power factor at full load: 0.99	
Output (continuous duty)	In-built drive and motor protection Insulation class F, 170°C magnets In-built double Klixon thermal protection	In-built drive and motor protection Insulation class F, 170°C magnets In-built double Klixon thermal protection	Insulation class F In-built double Klixon thermal protection
Motor	2.5kW RPM: max 900 Permanent Magnet synchronous 3-phase	2.5kW RPM:max 900 Permanent Magnet synchronous 3-phase	1.8kW RPM: 720 @ 50Hz / 870 @ 60Hz Asynchronous 3-phase motor
Voltages	1-phase 100–270VAC. 50–60Hz 3-phase 360-500VAC. 50–60Hz	1-phase 100–270VAC. 50–60Hz 3-phase 360-500VAC. 50–60Hz	3x400V, 50/60Hz or 3x230V, 50 Hz (D) or speed controlled via any VFD
Capacity	Up to 79700 m³/h (46900 cfm)	Up to 77200 m³/h (45400 cfm)	Up to 69500 m³/h (40900 cfm)
Pressure	up to 75 Pa (0.30” WC)	up to 137 Pa (0.55” WC)	up to 100 Pa (0.40” WC)
Air flow ratio	0.85	0.91	0.85

MagDoor

The only loss-free damper system

MagDoor is a fast-operating roller door that substitutes conventional shutter systems and ensures completely unrestricted airflow and unsurpassed efficiency.

MagDoor, with its insulated PVC segments, seals off a full-size wall fan like MagFan, to prevent backdraft and cold air ingress. Alternatively, it may be used as an air intake, sealing off a vent opening in a wall, for instance a tunnel air inlet in a tunnel ventilated building. Mounted in front of a MagFan with an additional fan cover on the outside fan cone, the combination offers excellent thermal insulation and air tightness.

Typical applications are poultry, pig and dairy production facilities or industrial buildings.

Correctly installed and operated, the MagDoor can withstand pressures of 150 Pa (0.6” WC)

- Tubular motor design
- Integrated limit switches
- Fully enclosed motor
- 230VAC 50/60 Hz operation
- Opens and closes in 20 seconds
- Manual emergency opening
- Can be power washed





“MagFans are whisper quiet”

Laurie Brosnan, one of the owners of Bettapork in Queensland, Australia, a 2000 sow full line production with three individual sites for sows, weaners, and finishers, has installed MagFans in eight sheds. Bettaport chose MagFan again for their newest expansion in 2023.

Quite convincing

”When I first saw the MagFan at the Eurotier show in 2014 I was just about to renew my finisher site. We found that the quality and the operational cost of the MagFan was quite convincing, so we decided to try them out in eight houses. Each house holds 600 finishers, so to get the air speed needed, we installed five MagFans per house,” says Laurie.

Whisper quiet

”We are very happy with the performance to date. The MagFans have fewer moving parts than other fans which means less maintenance for us. They are whisper quiet and consume far less power than any other similar size fans on our farm. My staff say the air is cleaner, fresher in these sheds. This because there is a more uniform, constant, and stable air speed throughout the house. The MagFans were commissioned in September 2015 and have been running flawlessly ever since, and no matter the season, or the age of the animals, the air quality is good, and the air speed is exactly where it should be. Great fans and an excellent investment,” states Laurie Brosnan.





“MagFan is the doorbreaker in our business”

AFI in The Philippines specialize in turn-key solutions for the poultry industry. AFI owner Hugh McDougall explains that MagFan is their big doorbreaker, and with the all-new Solectrifier from DACS they are experiencing a boom in their business.

Fan reliability and performance is key

Hugh McDougall: ”In this climate, fans often run flat out during the day in high heat and static pressure. Most conventional fans can’t handle that. But MagFans run reliably, always with power in reserve – that’s how DACS designed them. We can simply increase fan speed if needed, and they deliver consistent, powerful performance and at the same time cutting up to 70% of the running cost.”

We walk the talk

”When it comes to energy savings, we walk the talk! We can’t just talk Green Transition – we must act. Power is expensive, and the grid is overloaded and fragile, so high consumption can cause failures. MagFans typically offer 60–70% on the electrical power savings over conventional fans, meaning lower power draw, better supply stability and a much smaller power bill. They also tolerate a much wider voltage range, which is crucial in countries where a 230V supply can vary between 160 and 270V.”

Zero power consumption during daytime

AFI was among the first DACS distributors to test the new Solectrifier, and Hugh sees strong potential: “It’s a completely new way of thinking solar. It feeds solar power directly to the fan – no conversion loss, no inverter. During daytime, MagFans can run on 100% solar with zero grid use. The dual-power system blends solar and grid power automatically, with solar as the primary source. It ensures stable fan performance, saves power, relieves the grid, reduces voltage fluctuations, and adds the safety of dual supply – all supporting animal welfare and protecting our clients’ investment,” Hugh concludes.



”I reduced my electrical bill for my fans by an astonishing 90%!”

Edgar Orozco is the general manager at Technigran in Colombia. Also, Edgar is the owner of a broiler operation on the outskirts of Barranquilla. In the spring of 2019, Edgar installed a set of MagFans in one house and that completely changed his understanding about how much impact these fans have on the overall profitability in a poultry house.

MagFans impact overall profitability

I first saw the MagFan at the IPPE show in Atlanta in January 2019 and decided to test MagFans in one of my broiler houses. I wanted to find out for myself if the data on savings presented to me from Bess Lab test reports would also materialize in real life. I immediately saw a 65% reduction in the electrical consumption compared to my other seven houses on the farm, but more surprising to me was the impact the speed controlled MagFans had on overall profitability.

Derived effects on my financial situation

In 2020, we had MagFans installed on the entire farm. The 65% power saving is significant, but the derived effects from the MagFan installation are also a strong contributor to my overall financial situation. The gentle, noiseless, constant and uniform airflow provided by the speed controlled MagFans is simply so much better and very different from what we see in stage controlled houses. MagFans are the very reason why we consistently see a much better litter quality and stronger, heavier (2.7 kg at 36.6 days) and more uniform birds, as well as lower feed conversion (1.42) and mortality (2.7%).

Solectrifiers are truly another win for me

In 2022, I installed a set of Solectrifiers from DACS in one of my houses. Solectrifiers allow me to source electricity directly from my photovoltaic (PV) panels to the MagFans. This direct sourcing brings a much more predictable and reliable supply of electricity to my MagFans because they run uninterrupted if the public grid is down during daytime. The fully automated Solectrifiers seamlessly mix electricity from the PVs and the public grid, giving priority to PV power and topping up with electricity from the public grid only when needed. As soon as the sun hits the PV panels, the solar generated electricity starts to flow to the MagFans and grid power consumption drops. Depending on the weather we see the MagFans run entirely on electricity from the PVs around 10 hours each day, and that is during peak load. My electricity bill has now been reduced by 90% compared to the days before I installed MagFans and we now have a much safer system with far less blackouts, so Solectrifiers are truly another win for me.

Sustainability

MagFan – fostering energy efficiency in livestock buildings

The global demand for energy continues to rise and ventilation of livestock buildings represents a notable percentage of global energy consumption.

Thus, improving the efficiency of ventilation systems plays an important role in fostering energy efficiency in livestock buildings. MagFan greatly reduces energy consumption and at the same time improves indoor air quality via proven climate control strategies.

A lasting ventilation solution

In fact, MagFan is so efficient that the energy consumption in four (4) buildings equipped with MagFans is the same as in one (1) building with traditional fans – the same ventilation capacity installed in all five buildings.

In other words, MagFan cuts your energy consumption by 75% compared to buildings where traditional fans are installed. MagFan simply is your best choice for an energy efficient and lasting ventilation solution.

Solectrify your business

Solar Panels are ideal for livestock production because solar panels produce electricity during daytime — just when the need for ventilation in a building for livestock is at its highest.

Furthermore, electricity is getting increasingly expensive, and nothing indicates this will change. DACS have a solution for that. MagFans in combination with Solectrifiers.

The Solectrifier harvests electricity directly from photovoltaic panels and feeds this electricity via the MagDrive straight to the MagFan — reducing electricity consumption by as much as 91%.

The Solectrifier technology allows the MagFans to run completely off-grid during daytime, when the photovoltaic panels provide the required power to drive the fans.

Other benefits from installing a set of MagFans/ Solectrifiers:

- Main cable can be downsized 35%
- Generator sets can be downsized 35%
- Transmission (cable) losses completely eliminated with Solectrifier

Responsibility by design

MagFan was designed with efficiency in mind, but we also focused on a design that would significantly reduce transportation cost. Finally, we wanted a product with an estimated service life of 20 years.

We have already proven that MagFan reduces energy consumption by as much as 75%.

The innovative design reduces shipping volume by 75% — we can ship 165 MagFans in a 40’ HC container.

The result is CO_2 emission reductions in manufacturing and transportation, as well as a remarkable emission reduction throughout MagFan’s long service life.

That is responsibility by design.

Solectrifiers in operation in Colombia



ENERGY EFFICIENCY IS OUR DNA

DACS is a family-owned company with more than 30 years of experience.

We specialize in developing, producing, and servicing climate and ventilation control system for livestock production.

The DACS ventilation systems create a perfect in-house climate with a minimum of energy consumption, ensuring a profitable production no matter the time of year. Built to the highest standards, thus providing minimal maintenance and long service life.

We have used our comprehensive knowledge on both livestock production and ventilation in the development of among others our award-winning wall fan MagFan. Our products meet or exceed the international ISO5801 standard.

We want to be close to our customers. We know your world, and we understand your challenges.

DACS bring you:

- ***Energy efficient ventilation systems***
- ***Total production and climate control***
- ***Improved animal welfare***
- ***Timely, accurate deliveries***
- ***Superior product quality and service***

DACS

INNOVATION IN VENTILATION

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