

POSITIVE DISPLACEMENT BLOWERS

DELTA BLOWER GENERATION 5 *E-Design*

Intake volume flows of 30 m³/h to 1,000 m³/h



AERZEN

A tough endurance runner. Optimised energy balance.

The new E design of the Delta Blower Generation 5 series.

Energy efficiency is currently the most important focus, particularly in the field of compressor technology where energy costs exceed 90 % of the life-cycle-costs*. With its innovations, AERZEN has always been a standard setter to develop more efficient and environmentally friendly processes. To expand upon the success of the Aerzen Delta Blower Generation 5 series, an exciting new design sets energy saving records. The E blower extends the high-efficiency solution provided by the Delta Hybrid series in the low volume flow range.

*considered for a life cycle of 10 years

Less pressure loss. Lower energy costs.

The new E design amongst the positive displacement blowers stands for a reduction of power demand of up to 4 % depending on volume flow and pressure difference; setting an example for energy efficiency. The energetic improvement is the result of numerous constructive optimisations.

This includes flow-optimised guidance of the intake air in the acoustic hood and in the filter silencer. Particularly worth mentioning is the patented inlet cone (also used with Delta Hybrid rotary lobe compressors) that minimises the pressure loss and reduces the noise emission.

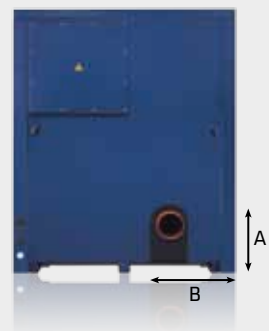
Better cooling. Higher efficiency.

Essential for the high energy efficiency of the Delta Blower E is a revised cooling concept. An electric motor driven cooling fan replaces the shaft-driven acoustic hood cooling fan.

Ideally positioned, it provides for perfect ventilation under the acoustic hood - and with lowest power requirement. In addition, the air is taken in at the cold side (front side) of the packaged unit and not at the warm side (back side) where the piping is connected and the waste heat discharges from the acoustic hood. As, the cooler the intake air, the more efficient the blower. For example, a 5°C cooler inlet equates to 1% energy saving.

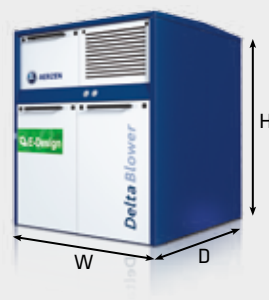
Positive pressure, max. data

Blower size	Pressure [mbar]	Volume flow [m ³ /h]	Motor power rating [kW]	Sound pressure level [dB (A)]
GM 3S G5-E	900	247	7,5	65
GM 4S G5-E	1000	342	15	70
GML 7L G5-E	700	493	15	70
GM 10S G5-E	1000	542	30	70
GML 10S G5-E	1000	696	30	73
GM 15L G5-E	700	1038	30	73



Dimensions and weights

type	H	D	W	A	B	Nominal size DN	Weight with acoustic hood
GM 3S G5-E	1055	800	800	228	245	50	212 kg
GM 4S G5-E	1280	1135	925	258	258	80	299 kg
GML 7L G5-E	1280	1135	925	258	258	80	304 kg
GM 10S G5-E	1280	1135	925	258	258	100	328 kg
GML 10S G5-E	1500	1350	1250	294	375	100	496 kg
GM 15L G5-E	1500	1350	1250	294	375	100	511 kg



Subject to technical modifications - and technological changes

Energy saving arises from many details:

- Very wide control range from 25 % to 100 %
- Patented inlet cone for reduced pressure losses
- Flow-optimised air guidance in acoustic hood and filter silencer
- Suction on the cold side of the packaged unit
- Premium efficiency/IE3 motors
- Belt drive to match exactly the specified intake volume flow
- Power fluctuations are minimal compared to a turbo compressor. Even under varying inlet temperatures (summer/winter operation) and pressure fluctuations.
- Electrically driven acoustic hood fan according to ErP guideline 2005/32/EG (The European guideline 2005/32/EG regulates the design of electrically driven fans with respect to their energy efficiency)

The new E design:

Efficiency

- Up to 4% energy saving
- Significantly reduced life-cycle-costs
- Standard for energy efficiency and economy in a volume flow range up to 1,000 m³/h

Ecology

- Low emission values
- 100 % oil-free compression – certified by the technical authority TÜV

Essential

- Extremely reliable under most difficult ambient conditions
- Robust and durable
- Very easy to service and maintain

Evolution

- Perfect adaptability to process requirements
- Ideal addition to the innovative AERZEN Delta Hybrid rotary lobe compressors



Simply clever: The belt-driven Delta Blower offers the significant advantage of exact sizing. Since the greatest advantage comes from the energy that does not need to be used. In other words, a 5 % excess in volume flow corresponds to a 5 % higher energy use!



AERZEN. Compression the key to success.

AERZEN was founded in 1864 as Aerzener Maschinenfabrik. In 1868 we manufactured the first positive displacement blower in Europe. In 1911 the first turbo blowers followed, in 1943 the first screw compressors and in 2010 the first rotary lobe compressor packaged unit of the world. Innovations made by Aerzen accelerate the development of the compressor technology more and more. Nowadays AERZEN counts among the oldest and most important manufacturers of positive displacement blowers, rotary lobe compressors, rotary piston gas meters, screw compressors and turbo blowers. And in many fields of application AERZEN counts among the uncontested market leaders.

In over 40 affiliates around the world and with more than 2,000 employees, we put our experience to work on constantly improving compressor and blower technologies. Our technical competence and the ongoing dialogue with customers form the foundation on which AERZEN's intelligent and successful products are built. Solutions that constantly set new standards for energy efficiency, performance and quality, and that meet constantly changing regulations - with post-sales service available all around the world. Challenge us!

Aerzener Maschinenfabrik GmbH
Reherweg 28 - D-31855 Aerzen
Telephone: 05154 81-0 - Fax: 05154 81-9191
info@aerzener.de - www.aerzen.com



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