

# SCREW COMPRESSORS PACKAGES

## DELTA SCREW GENERATION 5

Oil-free compression in the pressure range up to 4,5 bar (a)  
for volume flows from 120 m<sup>3</sup>/h to 2,650 m<sup>3</sup>/h (71 to 1450 cfm)  
Single-Stage Oil-Free Air-Cooled Rotary Screw Compressors



**AERZEN**

# THE NEXT GENERATION. MAXIMIZING ENERGY EFFICIENCY.

**The Delta Screw Generation 5 is the synthesis of many successful features. Combined with technical innovations, this new series offers 5 main advantages:**

## **Energy efficiency and reduction of Life-Cycle-Costs:**

AERZEN screw compressors are distinguished by two different rotor profiles, which is unique in today's screw compressor market.

Specially designed 3 + 4-profile (VML-compressors) for low-pressure rise applications up to 30psig, and 4 + 6-profile (VM-compressors) for higher pressures up to 51psig are available. Minimum pressure—VML 8psig; VM 15psig subject to operating conditions. Now, the most energy efficient compressor type is available depending on the application and pressure range. The use of energy can be further optimized through the selection of two built-in pressure ratios for each compressor unit. Through innovations in discharge silencing, pressure losses has been reduced significantly. Premium efficiency and IEC and NEMA motors are used on the Delta Screw Generation 5 to gain an additional energy savings.

## **Lower sound levels:**

Compared with previous generations, sound levels of the new Delta Screw Generation 5 are reduced by an average of about 6 dB(A); in some cases even more, without using absorption material in the discharge silencer.

## **ATEX-certification available:**

AERZEN compressors can be specially designed and certified for the requirements in categories 2 and 3 for dust—as well as gas zones. The discharge silencer maintains sound dampening by means of air-redirections, which allows compressor units to be free from absorption material. After extensive testing, this is now a certified spark arrester. This renders an external spark arrester in pneumatic conveying of combustible bulk material unnecessary.

## **Space-saving design:**

The Delta Screw Generation 5 is very compact and designed to allow “side-by-side” installation without restricting service and maintenance access. The reduction of space permits savings with smaller machine rooms.



VML-Compressor



VM-Compressor



# QUIET, COMPACT, ENERGY EFFICIENT.

Today's processing industry's demands for increased performance and ever higher gas compression efficiency are among the greatest technological challenges. For decades, the most successful solutions have been coming from AERZEN. And now the renowned compressor specialist has made its premium class even better. New developments in the successful belt-driven Delta Screw Generation 5 compressors are setting new standards for reliability, performance and low lifecycle costs (LCC).

## Easy handling starts with easy installation:

### Easy Handling

- The G5 Screw Compressor can be moved by means of a four-wheel pallet truck and/or forklift truck. Once installed, an integrated service package simplifies future servicing. The units are operated from the front and all components requiring maintenance are easily accessible.

### Oil system

- Another advantage is the new oil system. The oil level can be viewed and checked from the outside of the unit while it is still in operation.



### Life-Cycle-Costs

- A reduction in maintenance expenditure as well as a decrease in Life-Cycle-Costs is the result of the AERZEN Delta belt drive concept. The Delta Screw Generation 5's drive motor is installed on a hinged motor mounting plate, and using its own weight, is always adjusted for optimal belt tension to maintain highest drive efficiency of the unit while it is still in operation.

### Retensioning

- Retensioning is no longer necessary - even after a longer period of operation. This new concept makes the subsequential adjustment of compressor performance possible (pressure/volume flow) by means of an easy economical change of sheaves.

### Further advantages of the new series Delta Screw Generation 5 include:

- Compressor shaft mounted fan
- Class 0-certification per ISO 8573-1 (oil-free air)
- Approval acc. to PED-, ASME-, RTN-directive as well as China License





#### **Instrumentation package:**

- AERtronic Control System includes pressure transmitters for intake, discharge and oil pressure, as well as resistance temperature detectors (RTD) discharge and oil temperature and operator interface.



#### **AERZEN means trouble-free compression.**

The single-stage positive-displacement program includes a full spectrum of product offerings. Whatever the application and installation requirements are, be sure to consider AERZEN.

#### **G5 Delta Care Maintenance Agreement**

Warranty: 5 years optional with our G5 Care Maintenance Agreement

#### **For Pressure**

- Up to 15 psi: G5 Blower packages
- Delta Hybrid up to 22 psi
- 8 to 51 psi: Oil-free and air-cooled VM and VML screw compressors

#### **For Vacuum (Dry)**

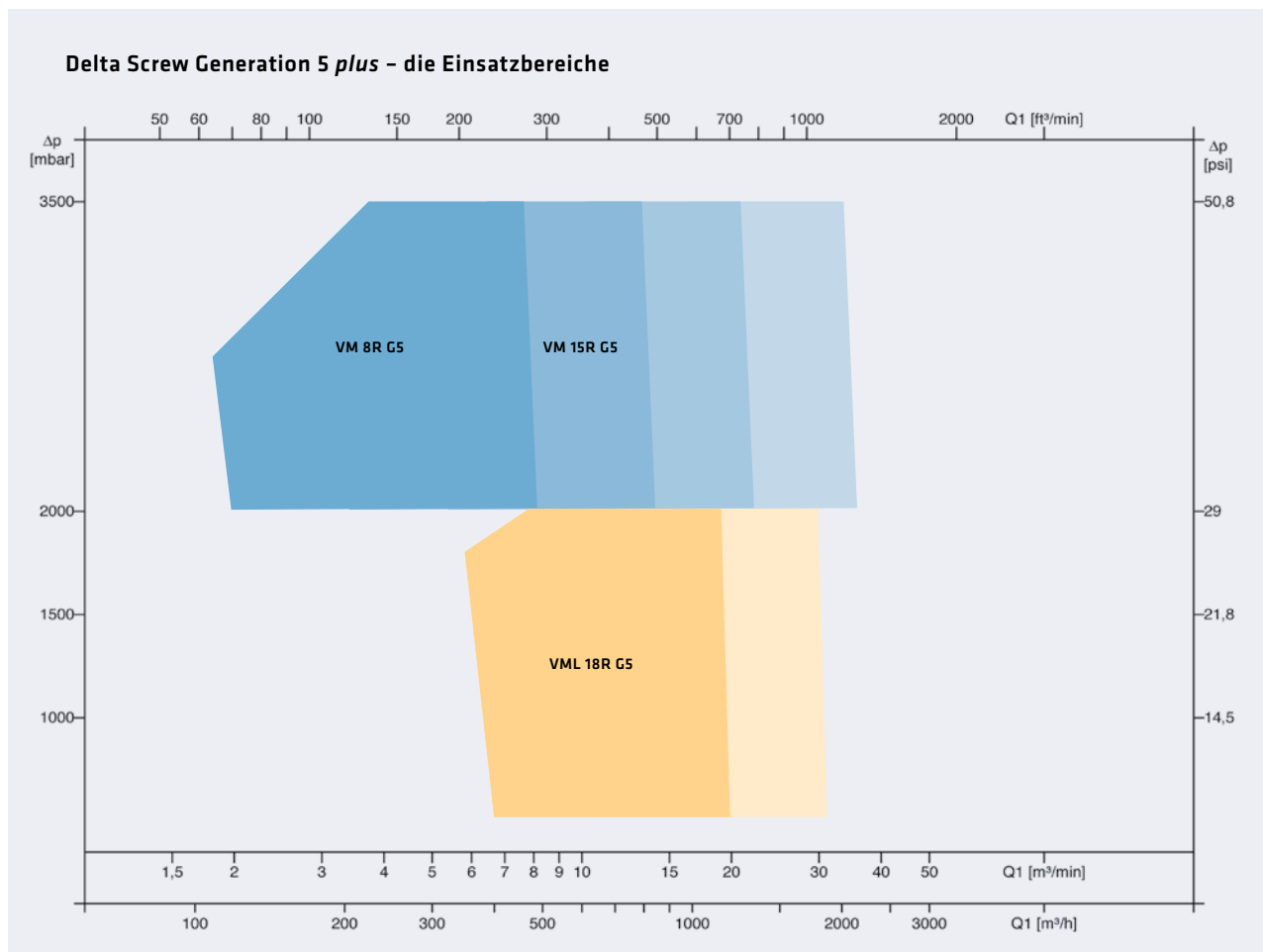
- Up to 15" Hg: G5 Blower packages
- Hybrid up to 20" Hg
- Up to 25" Hg: G5 Blower packages with pre-inlet cooling
- Up to 25.5" Hg: Oil-free and air-cooled VM screw compressors at same flow (30% more efficient than PD blowers)
- Vacuum boosters to 10<sup>-3</sup> mbar absolut

#### **For Extended Pressure/Vacuum**

- Up to 40,000 cfm available
- For other gases, higher pressure/vacuum consult factory

# PRODUCT DIVERSITY. THE RIGHT MODEL FOR OPTIMAL EFFICIENCY. THE MANUFACTURER'S REPUTATION FOR SAFETY.

There are 7 belt-driven, oil-free Delta Screw Generation 5 *plus* compressors alone for volume flows of up to 2,650 m<sup>3</sup>/h. And with the second series – direct drive compressors – the application range extends to 15,000 m<sup>3</sup>/h.



AERZEN has the largest selection of screw compressors on the market today. This means that clients can almost always find a compressor that will perfectly match their specific applications. Facilities where compressors had to run below the mini-

imum speed because they were too small for the job, or whose accessories had insufficient cross-sections – these are now a thing of the past.

# DIMENSIONS AND WEIGHTS.



Front

Back

G5 Screw Compressor Dimensions								
VM compressor, pressure differences up to max 51psi   VML compressor, pressure differences up to max 30 psiww								
G5 Screw Compressor without Motor		Positive Pressure Maximum Data			Vacuum Maximum Data			
AERZEN Screw Compressor Model	Max. Allow. Inlet Pressure (psia)	Max. Flow (cfm) <sub>w</sub>	Motor Rating (HP)	Sound Pressure Level db(A)	Max. Vacuum (inHg)	Max. Flow (cfm)	Motor Rating (HP)	Sound Pressure Level db(A)
VML 18 R-G5	17.4	650	100	80	21	650	40	76
VML 18 R-G5 (P)					25	490	50	75
VML 25 R-G5	17.4	950	150	80	21	950	50	79
VML 25 R-G5 (P)					25	740	60	78
VML 40 R-G5	17.4	1450	200	80	21	1350	75	75
VM 8 R-G5	72.5	270	75	80				
VM 15 R-G5	72.5	470	100	80				
VM 21 R-G5	29	720	150	80				
VM 37 R-G5	29	1150	200	80				

Typ	Length (inches)	Width (inches)	W Height (inches)	Approx Weight without motor (lbs)	Discharge Flange (150# rating inches)
VML 18 R-G5	53	49	70	2116	DN-80 3
VML 18 R-G5 (P)	53	49	70	2116	DN-80 3
VML 25 R-G5	71	59	78	3307	DN-125 5
VML 25 R-G5 (P)	71	59	78	3307	DN-125 5
VML 40 R-G5	66	81	83	3800	DN-150 6
VM 8 R-G5	53	49	70	1984	DN-65 2.5
VM 15 R-G5	53	49	70	2116	DN-65 2.5
VM 21 R-G5	71	71	78	3351	DN-80 3
VM 37 R-G5	66	81	83	3800	DN-150 6

(P) = Machine with pre-inlet

For informational use only. Dimensions and weights may vary.

Contact Aerzen USA if certified dimensions are required. Oversize/overweight motors may require hinge plate support.



**AERZEN. Compression as success factor.**

The Aerzener Maschinenfabrik was founded in 1864. In 1868 we built Europe's first rotary lobe blower. The first turbo blowers followed in 1911, the first screw compressors in 1943, and in 2010 the world's first rotary lobe compressor package. AERZEN innovations are a driving force behind the development of compressor technology. Today, AERZEN is one of the world's oldest and most important manufacturers of rotary lobe blowers, rotary lobe compressors, rotary lobe gas meters, screw compressors, and turbo blowers. And in many areas of application, AERZEN is among the undisputed leaders.

There are more than 2000 experienced AERZEN employees in over 43 subsidiary companies worldwide working hard to advance compressor technology. Their technological expertise, our international network of experts, and the constant feedback from our customers are what make us successful. AERZEN products and services have become standards in the industry for reliability, lasting value, and efficiency. Go ahead: challenge us!

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EXPECT PERFORMANCE