



PRODUCT CATALOG

VSD SERIES

Precision Compressed Air Systems

For industrial & body shop applications



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Engineered for real-world performance

AERO compressed air systems are engineered to close the gap between low-cost import compressors and ultra-premium European brands.

We apply German engineering principles of efficiency, durability, and serviceability, while keeping pricing realistic for the American collision-repair and light industrial market.

Every design decision prioritizes reliability, energy efficiency, and ease of ownership.



Two system options. One engineering standard.

All-In-One Systems

A fully integrated compressor, dryer, air receiver, filtration, and controls in one factory-engineered unit for fast installation and predictable performance.

Modular Systems

A build-your-own approach for facilities that require separate components, custom layouts, or phased expansion.

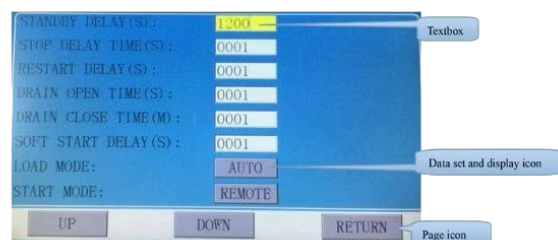
Both options are designed to the same AERO engineering standards: efficiency, reliability, and long-term value. The choice depends on your space, workflow, and growth plans.

Modern industrial controls

MAM6080 / MAM6090 touchscreen controllers offer intuitive operation, real-time monitoring, and Ethernet connectivity.

Multiple AERO compressors can communicate together in a master/slave configuration, automatically balancing load, sequencing runtime, and optimizing overall system efficiency.

This allows scalable installations, reduced energy consumption, and consistent system pressure, all without external control hardware.



Service-first mechanical design

AERO systems are engineered with defined service access zones to support routine inspection and maintenance.

Key service components such as filters, separators, drains, and electrical elements are positioned for direct access without major disassembly, reducing service time, downtime, and installation constraints.

This design supports safe maintenance practices and long-term operational reliability in commercial environments.

ASME-certified air receivers

All AERO air tanks are ASME-certified and compliant with California and commercial installation requirements. This ensures smooth inspections, insurance approval, and long-term legal compliance in regulated environments.



Condensate management & dryer protection



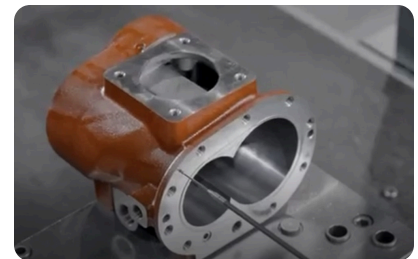
Electric automatic condensate drains at key points, including the refrigerated dryer, filtration stages, and air receiver, ensure consistent moisture removal and reduced maintenance during continuous operation.

AERO refrigerated dryers feature intelligent anti-freezing protection with automatic control of condensing and dew point temperatures, preventing evaporator icing under low-load or variable conditions.

Drive control & precision manufacturing

AERO compressors are built with industrial-grade components, including SKF bearings, Saint-Gobain oil seals, and Schneider Electric contactors, selected for durability and long service life in continuous-duty applications.

The AERO airend is manufactured on MAZAK CNC machining centers, with critical components machined to an accuracy of 0.005 mm (0.0002 in). Multi-axis machining and in-process probing ensure precise rotor geometry and alignment for consistent performance, low vibration, and long-term efficiency.



Schneider
Electric

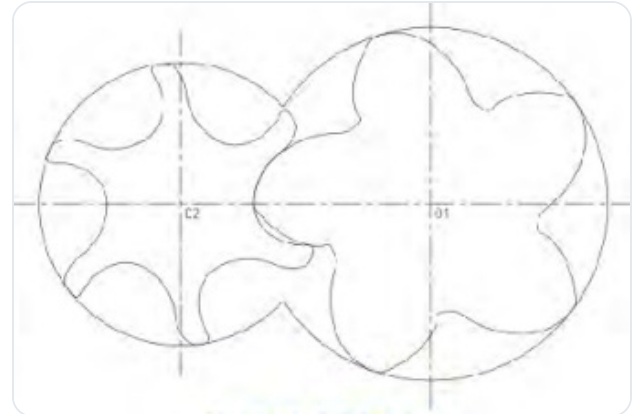
SAINT-GOBAIN

High-efficiency V-profile airend

AERO compressors use a high-efficiency V-profile single-stage screw airend, developed in collaboration with City, University of London. The optimized rotor geometry delivers:

- High volumetric efficiency
- Reduced internal leakage
- Optimized compression contact points

This advanced profile enables single-stage compression with top-tier energy efficiency across the AERO range.



V-PROFILE ROTOR GEOMETRY

Permanent magnet direct drive

AERO systems are equipped with a high-efficiency oil-cooled permanent magnet motor, engineered for continuous industrial operation.

The motor and airend share a direct-drive shaft, eliminating belts, couplings, gears, and intermediate components.

IP65 Rated protection for demanding environments

Oil-cooled Low noise, low vibration, thermal stability

+10% Higher efficiency vs conventional asynchronous motors

Energy is the largest lifetime cost of a compressor. AERO VSD systems are designed to reduce it.

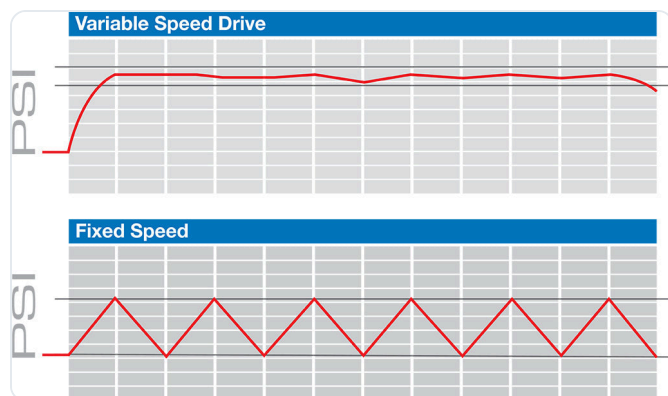
All AERO compressors are equipped with Variable Speed Drive technology as standard. The compressor continuously matches air output to actual demand, eliminating energy waste, pressure fluctuations, and unnecessary mechanical stress common in fixed-speed systems.

The combined V-profile airend, permanent magnet motor, and direct-drive architecture exceed established industry efficiency benchmarks, reducing electrical consumption, lowering operating costs, and accelerating return on investment.

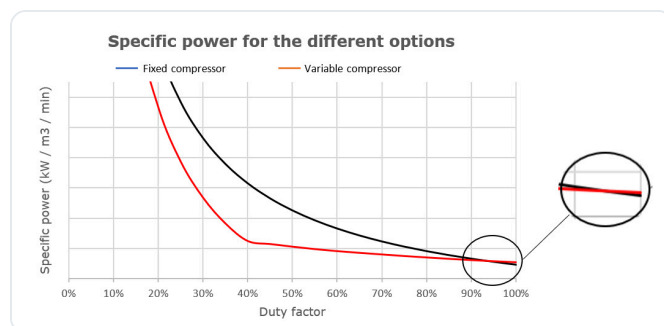
High-quality INOVANCE inverter technology precisely controls motor speed to match air demand for efficient, reliable, and stable operation.

VSD saves money

- 35-50% lower energy consumption
- Soft-start operation with no inrush current
- Stable system pressure (± 2 PSI typical)
- Reduced wear & longer service life
- Lower total cost of ownership



Stable pressure with VSD. Fluctuations with fixed-speed operation.



VSD efficiency increases where compressors operate most: partial load.

All-In-One or Modular: same AERO core technology

Both options use the same AERO compressor technology and components. The difference is how the system is packaged and installed.



All-In-One systems

PLUG-AND-PLAY · FACTORY INTEGRATED

Delivered fully assembled, with compressor, dryer, air receiver, filtration, and controls pre-configured and tested together. Fast installation, minimal on-site work, immediate operation.

- Quick commissioning
- Clean, compact footprint
- Predictable performance from day one

Best for small/medium shops & fast installs



Modular systems

DESIGNED TO FIT · BUILT TO SPEC

Same core AERO technology, delivered as separate components for custom installation and system design.

- Specific room layouts
- Space or noise constraints
- Phased or expandable systems
- Replacement of older compressors, dryers, or tanks

Best for large shops & phased expansion

TECHNICAL SPECIFICATIONS

AERO All-In-One VSD compressors

Model	HP	Includes	Voltage / Phase	psig	cfm	Tank (gal)	dB(A)	W×D×H (in.)	Weight (lb.)	FLA	Breaker	Wire (AWG)
ADV-A1-VSD10-220	10	Compressor · dryer · tank · filters	220V / 3-Ph	100 116 145	38 35 32	132	65	68 × 26 × 64	840	32 A	40 A	#8 Cu
ADV-A1-VSD15-220	15	Compressor · dryer · tank · filters	220V / 3-Ph	100 116 145	60 56 52	145	65	74 × 33 × 77	1,110	46 A	60 A	#6 Cu
ADV-A1-VSD20-220 ADV-A1-VSD20-460	20	Compressor · dryer · tank · filters	220V or 460V / 3-Ph	100 116 145	80 75 70	145	65	74 × 33 × 77	1,110	62 A 32 A (460V)	80 A 40 A (460V)	#4 Cu #8 Cu (460V)
ADV-A1-VSD30-220 ADV-A1-VSD30-460	30	Compressor · dryer · tank · filters	220V or 460V / 3-Ph	100 116 145	124 118 108	158	75	82 × 30 × 77	1,450	87 A 40 A (460V)	125 A 60 A (460V)	#1 Cu #6 Cu (460V)
ADV-VSD5.5-2201P	5.5	Compressor · tank	220V / 1-Ph	100 116 145	18 17 16	42	65	43 × 21 × 54	309	17 A	40 A	#6 Cu
ADV-VSD7.5-2201P	7.5	Compressor · tank	220V / 1-Ph	100 116 145	24 23 21	42	65	43 × 21 × 54	309	23 A	40 A	#6 Cu
ADV-A1-VSD7.5-2201P	7.5	Compressor · dryer · tank · filters	220V / 1-Ph	100 116 145	24 23 21	53	65	59 × 21 × 49	419	25 A	50 A	#6 Cu

AERO VSD compressors

Model	HP	Voltage / Phase	psig	cfm	dB(A)	W×D×H (in.)	Weight (lb.)	FLA	Breaker	Wire (AWG)
ADV-VSD10-220	10	220V / 3-Ph	100 · 116 · 145	38 · 35 · 32	65	33 × 27 × 37	440	28.8 A	40 A	#8 Cu
ADV-VSD15-220	15	220V / 3-Ph	100 · 116 · 145	60 · 56 · 52	65	40 × 33 × 45	660	42 A	60 A	#6 Cu
ADV-VSD20-220 / -460	20	220V or 460V / 3-Ph	100 · 116 · 145	80 · 75 · 70	65	40 × 33 × 45	660	58 A / 27 A	80 A / 40 A	#4 / #8 Cu
ADV-VSD25-220 / -460	25	220V or 460V / 3-Ph	100 · 116 · 145	99 · 94 · 85	65	44 × 35 × 47	860	75 A / 36 A	100 A / 60 A	#3 / #8 Cu
ADV-VSD30-220 / -460	30	220V or 460V / 3-Ph	100 · 116 · 145	124 · 118 · 108	75	44 × 35 × 47	860	83 A / 40 A	125 A / 60 A	#1 / #6 Cu
ADV-VSD40-460	40	460V / 3-Ph	100 · 116 · 145	174 · 166 · 151	75	48 × 38 × 54	1,170	55 A	80 A	#6 Cu
ADV-VSD50-460	50	460V / 3-Ph	100 · 116 · 145	229 · 218 · 198	75	51 × 40 × 54	1,300	67 A	100 A	#4 Cu
ADV-VSD75-460	75	460V / 3-Ph	100 · 116 · 145	358 · 341 · 309	80	63 × 52 × 63	1,300	99 A	150 A	#1 Cu

Specifications are subject to change without notice. Electrical specifications shown are typical recommendations. Final breaker sizing, conductor sizing, and installation must comply with NEC requirements and be verified by a licensed electrician and local authority having jurisdiction.



AERO refrigerated dryers

Model	Matched to	Voltage / Phase	Rated flow (cfm)	Input power (kW)	FLA @220V	Air connection	Dew point (°F)	Max inlet (°F)	W×D×H (in.)	Weight (lb.)	Breaker	Wire (AWG)
ADV-DRY-42-220	7.5–10 HP	220V / 1-Ph	42	0.37	2.2	3/4" NPT	36–50	149	15.0 × 18.9 × 26.2	79	15 A	#14 Cu
ADV-DRY-85-220	15–20 HP	220V / 1-Ph	85	0.52	3.1	1" NPT	36–50	149	16.1 × 20.5 × 28.5	99	15 A	#14 Cu
ADV-DRY-127-220	25–30 HP	220V / 1-Ph	127	0.735	4.4	1" NPT	36–50	149	20.5 × 25.2 × 33.5	123	20 A	#12 Cu
ADV-DRY-230-220	40–50 HP	220V / 1-Ph	230	1.26	7.5	1-1/2" NPT	36–50	149	21.3 × 27.6 × 37.4	139	20 A	#12 Cu
ADV-DRY-300-220	60 HP	220V / 1-Ph	300	1.87	11.1	1-1/2" NPT	36–50	149	23.2 × 30.3 × 39.0	161	30 A	#10 Cu
ADV-DRY-371-220	75 HP	220V / 1-Ph	371	2.43	14.4	2" NPT	36–50	149	23.2 × 30.3 × 39.0	187	30 A	#10 Cu
ADV-DRY-459-220	100 HP	220V / 1-Ph	459	2.63	15.6	2" NPT	36–50	149	24.0 × 31.1 × 40.6	207	30 A	#10 Cu



AERO air receiver tanks

Model	Capacity (gal)	ASME code	Max pressure (psig)	Orientation	Diameter (in.)	Height (in.)	Weight (lb.)	Inlet / Outlet	Safety valve	Drain
ADV-TANK-80-ASME	80	ASME Sec. VIII	145	Vertical	21.7	61.1	200	1" NPT	1/2" NPT	1/2" NPT
ADV-TANK-130-ASME	130	ASME Sec. VIII	145	Vertical	25.6	82.4	317	1-1/2" NPT	3/4" NPT	1/2" NPT
ADV-TANK-260-ASME	160	ASME Sec. VIII	145	Vertical	31.5	86	542	1-1/2" NPT	3/4" NPT	1/2" NPT

Specifications are subject to change without notice. Electrical specifications shown are typical recommendations. Final breaker sizing, conductor sizing, and installation must comply with NEC requirements and be verified by a licensed electrician and local authority having jurisdiction.

Key selection criteria

CFM

Air flow requirements

Determine total air demand by summing the CFM requirements of all tools and equipment operating in the facility, adding a 20–30% safety margin for simultaneous usage, system losses, and future expansion. We can also provide a data-logging tool that records real air consumption over a one-week period, so we can recommend a system precisely matched to your needs.

PSI

Operating pressure

Most applications operate between 90 and 145 PSI. Paint spraying typically requires 90–100 PSI regulated at the booth; pneumatic tools commonly run 110–145 PSI. Many facilities supply 145 PSI to compensate for pressure drop during peak demand. All AERO compressors are rated up to 145 PSI and can be set lower to increase airflow and efficiency.

ISO

Air quality

Spray finishing requires clean, dry air compliant with ISO 8573-1 Class 1.4.1 to prevent moisture, oil contamination, and surface defects. AERO refrigerated dryers remove moisture at the source, while multi-stage filtration captures oil aerosols, particulates, and contaminants, protecting spray equipment and finish quality.



AERO Pressure Systems

Engineered compressed air systems for continuous industrial use.

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