

Applied Compression Systems



**VECTOR 3100 SERIES
ROTARY VANE INSTRUMENT AIR
COMPRESSOR PACKAGES**

ABOUT ...

Vector 3100 Series instrument air compressor packages are designed and built to service today's stringent requirements for clean, dry instrumentation quality compressed air, with outstanding performance and long-term economy.

These compact compressor packages are ideal for gas plants, oil batteries, process skids and many other applications.

You get a completely pre-engineered compressed air system ensuring an adequate supply of instrument quality air with a minimum of expense.

Their modular design makes it possible for us to find the optimum solution for each specific case, from both a technical and economical point of view.

Every compressor package is completely assembled and tested under load to make sure it leaves our plant in perfect operating conditions.

Vector 3100 Series instrument air compressor packages are designed to deliver more air per horsepower, with minimum maintenance and to operate quietly and reliably year in and year out.



BENEFITS ...

Engineering and procurement departments worldwide recognize the benefits of purchasing instrument air compressor packages from a company with two generations of compressor packaging experience. Benefits that include:

- **REDUCED CONSTRUCTION COSTS:** Our shop costs are generally much lower than those of field construction.
- **REDUCED INSTALLATION TIMES:** Applied Compression's range of instrument air compressor packages helps clients reduce implementation times and resources by delivering a fully designed, assembled, and tested solution.
- **SINGLE SOURCE RESPONSIBILITY:** From concept to completion, we provide design, fabrication, and testing.
- **GUARANTEED COMPONENT CAPABILITY:** One source for all the major components, ensuring components compatibility and process functionality throughout the entire system.
- **REDUCED LEAD TIME:** Many of the packages that we offer have been pre-designed for quick turnarounds.

WHAT WE OFFER ...

EXPERIENCE – Our key personnel have over 100 years of combined experience. This allows us to recommend the best technical solution and the most economical approach to your application.

CUSTOM DESIGNED PACKAGES – As a provider of both standard and custom fabricated compressor systems, we have the expertise to design and supply the most cost-effective package for your instrument air compression requirements. Our packages offer a clean, simple design that allows easy access for normal maintenance.

FULLY PACKAGED – Every compressor package is completely assembled and tested under load to make sure it leaves our plant in perfect operating conditions.

FULL RANGE OF ELECTRICAL CLASSIFICATIONS – Compressor packages are available for unclassified, Class 1, Division 2 and Class 1, Division 1 explosion proof areas.

ENGINEERED FOR MAXIMUM SAFETY – All packages are manufactured to ASME code as well as all provincial/state electrical code requirements. Pressure vessels are hydrostatically tested for complete user safety and equipment with approved ASME code safety relief valves.

MODULAR DESIGN – Our modular design allows us to select and match components that will provide the best economics for your applications.

CADD DESIGN – We utilize a Computer Aided Drafting Design (CADD) system, so we can provide you with a detailed look at your compressor package before it's manufactured.

DETAILED PARTS & OPERATING MANUALS – Each instrument air compressor package manufactured by us comes with a set of in-depth parts and operating manuals, so you can clearly understand the operation and maintenance requirements of the equipment.

QUALITY CONTROL DOCUMENTATION – On completion, you are provided with detailed quality control documentation including material test reports (MTRs), hydro-test reports, x-ray certificates, welder qualifications, weld mapping, ASME U1A forms etc., ensuring safe equipment operation for year to come.

SHIPPING LOGISTICS – Whether you need a package to be shipped within Canada, across North America or overseas, we can assist with final shipping arrangement to your site.

FEATURES ...

PROVEN COMPRESSOR DESIGN ... Vector 3100 Series instrument air compressor packages utilize field-proven Mattei compressors with thousands of units operating worldwide. Mattei rotary vane compressors have been designed and manufactured since 1958 to offer proven performance with over 500,000 units operating in all conditions and environments throughout the world.

FULLY INTEGRATED DESIGN ... The Mattei rotary compressors used on Vector 3100 Series packages offer an integral design which results in minimal piping connections, unlike most rotary screw compressors which can have upwards of fourteen connections for lubrication and control lines. Minimizing these connections reduces oil leakage and results in cleaner, more serviceable equipment.

LOW ROTATIONAL SPEEDS ... Mattei rotary vane compressors operate at a rotational speed of only 1,750 RPM – or less. Competitive rotary screw compressors operate at male rotor speeds of from 2,500 to 9,000 RPM. The lower rotating speeds of a rotary vane compressor mean longer bearing and air-end life.

NO AXIAL BEARING FORCE ... Mattei rotary vane air compressors operate without any axial forces on the bearings to result in air-end life of 100,000 to 150,000 hours of real running time – at least 2- 3 times the air-end life of a comparable rotary screw with roller and ball bearings. This axial load is the weakest point of all rotary screw compressors.

LOW OVERHAUL COSTS ... Mattei rotary vane compressors have only two shell type white-metal Babbitt bushings and therefore major overhauls cost less than half the price of comparable sized rotary screw air compressors, which can have 6 roller bearings.

FILTRATION SYSTEM ... A high-efficiency coalescing filter system removes liquid aerosols from the air stream prior to the dryer.

AIR DRYER ... a heatless regenerative air dryer reduces the pressure dew point of the air to -40° F (-40° C) for ISO Class 2 requirements or to -94° F (-70° C) for Class 1 requirements.

NO SPECIAL TRAINING REQUIRED ... Because of their uncomplicated design, Mattei rotary vane compressors can be serviced by most maintenance staff without the need for factory trained service technicians.



50 HP Mattei rotary vane instrument air compressor package with sunshade, regenerative dryer, filtration, and stainless-steel control panel.



Instrument air compressor package using a 30HP Mattei rotary vane compressor with wet air receiver, filtration, twin-tower heatless regenerative air dryer and compressor control panel.

SPECIFICATIONS AND SIZING

HP	RATED PRESSURE (PSIG)	SIMPLEX PACKAGE MODEL	DUPLEX PACKAGE MODEL	NOMINAL CAPACITY SCFM	
				SIMPLEX / DUPLEX	PACKAGE SKID EDGE ¹
5	125	V5S-M80B	V5D-M80B	23 / 46	19.5 / 39
7.5	125	V7S-M80D	V7D-M80D	33 / 66	28 / 56
10	125	V10S-M86A	V10D-M86A	43 / 86	36.5 / 73
15	125	V15S-M86E	V15D-M86E	67 / 134	57 / 114
20	125	V20S-M86G	V20D-M86G	75 / 150	64 / 128
25	125	V25S-M111C	V25D-M111C	105 / 210	89 / 178
30	125	V30S-M111E	V30D-M111E	129 / 258	110 / 220
40	125	V40S-M111H	V40D-M111H	154 / 308	131 / 262
50	115	V50S-M135C	V50D-M135C	212 / 424	180 / 360

¹ Nominal capacity at skid edge net after dryer purge losses will vary with actual operating pressure. Contact us for exact calculations.



Toll Free (855) 417-2396
Fax (250) 417-3183
info@appliedcompression.com

400 Industrial Road A
Cranbrook, BC V1C 4Z3