



# Underdeck Modular Systems for RAM®

4X2 and 4X4 Cab & Chassis - Models 3500, 4500 & 5500























### PTO Shaft & Hydraulic Driven Underdeck Modular Systems For RAM® 4X2 and 4X4



### **UNDERDECK KITS**

Each Vanair underdeck kit is specific to the make and model of your vehicle. All kits for RAM® trucks contain the following items plus the power unit, such as an air compressor or generator that you select.

- Power Unit
- Discharge Tank Assembly
- Air-to-Oil Cooler Assembly
- Air Filter Assembly
- V-TEC<sup>™</sup> (excludes hydraulic drive systems)
- RamDrive PLUS™ Kit (4X4 Only)
- Vanguard Rotary Screw Compressor Oil
- Hosing
- Valving

### **POWER UNITS**













Additional coolers may be required

Utilizing the RAM®'s own engine for power, Vanair underdeck rotary screw compressor systems provide you with the exceptional power your crew needs to get the job done where and when they need it – without hauling an expensive air compressor tow-behind. Using a single PTO opening, these systems provide up to 200 CFM\* of impressive air power, AC power or hydraulics, or any combination of all three. At half the cost of a tow-behind, PTO underdeck systems mount seamlessly out of sight, under the vehicle, leaving the towing hitch free for other equipment and opens up the truck bed for additional storage space.



PTO AIR COMPRESSORS

### PTO SHAFT DRIVEN AIR COMPRESSOR

AIR COMPRESSOR				
Capacity (CFM)	125	160	185	200
Air (PSI)	100-150	100-150	100-150	100-150
Compressor Input (RPM)	1730	1675	1920	2075

PTO Driven - Dry Weight (Lbs.): 407 (125-200 CFM)

### **HYDRAULIC DRIVEN AIR COMPRESSOR**

AIR COMPRESSOR			
Capacity (CFM)	125	160	185
Air (PSI)	100-150	100-150	100-150
Hydraulic (GPM)	27.6-29.2	36.8-38.3	42.2-44.2
Hydraulic Pressure (PSI)	2100-2620	2200-2700	2400-2830

Hydraulic Driven - Dry Weight (Lbs.): 453 (125-160 CFM), 453-491 (185 CFM)



PTO GENERATORS

### PTO SHAFT DRIVEN GENERATOR

GENERATOR					
kW	6.8	10	16.9	20	25
Voltage	120 or 120/240				
Phase	Single	Single	Single	Single	Single
AMPs	54/27	84/42	140/70	166/83	208/104
Speed (RPM)	1800	1800	1800	1800	1800
Weight (Lbs.)	80	123	270	295	339

PTO Driven - Dimensions (In.):  $12H \times 11.5W \times 17L$  (6.8 kW - 10kW),  $12H \times 12W \times 24L$  (16.9 kW),  $12H \times 12W \times 25L$  (20 kW - 25 kW)

Consult factory for additional kW options

### HYDRAULIC DRIVEN GENERATOR

GENERATOR						
kW	4	7.5	8.5	10	12	15
Voltage	120 or 120/240					
Phase	Single	Single	Single	Single	Single	Single
AMPs	33/16	62/31	72/36	84/42	105/52.5	126/63
Hydraulic Flow (GPM)	8.5	14.5	16	19	20	24
Pressure (PSI)	1800	1800	1800	2000	2000	2000
Weight (Lbs.)	78	105	114	121	129	141

Hydraulic Driven - Dimensions (In.): 10H x 8W x 23L (4 kW), 10H x 8W x 28L (7.5 kW - 10 kW), 11H x 11W x 29L (12 kW - 15 kW)

Consult factory for additional kW options





### **PTO SHAFT DRIVEN AIR COMPRESSOR & GENERATOR**

AIR COMPRESSOR			
Capacity (CFM)	125	160	185
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1900	1880	2160
Oil Capacity (Gal.)	3.5	3.5	3.5

Genair Kit Mounted Dry Weight (Lbs.): 513(min.) - 554 (max.)

GENERATOR (TEFC)			
<b>Output (continuous)</b>	6.6 kW	OR	9.6 kW
Voltage	120 or 120	)/240	120 or 120/240
Phase	Single Pha	ise	Single Phase
Speed	3600 RPM		3600 RPM
<b>Protection Degree</b>	IP54		IP54
Туре	Brushless	AVR	Brushless AVR

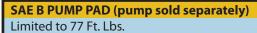




### PTO SHAFT DRIVEN AIR COMPRESSOR & SAE B PUMP PAD

AIR COMPRESSOR			
Capacity (CFM)	125	160	185
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1730	1675	1920
Oil Capacity (Gal.)	3.5	3.5	3.5

V2 Kit Mounted Dry Weight (Lbs.): 473(min.) - 514(max.)





MULTI-DRIVE SYSTEM™



### PTO SHAFT DRIVEN AIR COMPRESSOR, GENERATOR & SAE B PUMP PAD

AIR COMPRESSOR			
Capacity (CFM)	125	160	185
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1900	1880	2160
Oil Capacity (Gal.)	3.5	3.5	3.5

### **SAE B PUMP PAD (pump sold separately)** Limited to 77 Ft. Lbs.

V3 Kit Mounted Dry Weight (Lbs.): 595(min.) - 636 (max.)

GENERATOR (TEFC)					
Output (continuous)	6.6 kW <b>OR</b>	9.6 kW			
Voltage	120 or 120/240	120 or 120/240			
Phase	Single Phase	Single Phase			
Speed	3600 RPM	3600 RPM			
<b>Protection Degree</b>	IP54	IP54			
Туре	Brushless AVR	Brushless AVR			

### What kind of power do you need?



### UDSM Air Only

Xcite<sup>™</sup>
Generator Only

Genair®
Air & Generator

**V2**<sup>™</sup> Air & Hydraulic

V3<sup>™</sup> Air, Generator & Hydraulic

Air (CFM) Air (PSI) **PTO Shaft Driven** 125, 160, 185 or 200 100-150 Air (CFM) Air (PSI) **Hydraulic Driven** 125, 160 or 185 100-150 Output (kW) Voltage **PTO Shaft Driven** 6.8, 10, 16.9, 20 or 25 120 or 120/240 Output (kW) Voltage **Hydraulic Driven** 120 or 120/240 4, 7.5, 8.5, 10, 12 or 15

PTO Shaft
Driven

Air (CFM)
125, 160 or 185

Air (PSI)
100-150

Output (kW)
6.6 or 9.6

Voltage
120 or 120/240

PTO Shaft Driven Air (CFM) Air (PSI) SAE B Pump Pad\* 77 Ft. Lbs.

PTO Shaft Driven Air (CFM) Air (PSI) Output (kW) Voltage 125, 160 or 185 100-150 6.6 or 9.6 SAE B Pump Pad\* 77 Ft. Lbs.

\*Pump Sold Separately

## PTO Shaft & Hydraulic Driven Underdeck Modular Systems Additional Features (If Equipped)

### **AIR COMPRESSOR**

- · Lifetime Warranty on Air End
- 100,000 Hours Design Life
- 100% Duty Cycle
- Greater Efficiency for Lower Engine RPMs
- Integrated Inlet Valve and Rear Discharge Provides Higher Ground Clearance
- Made in the USA

### **GENERATOR (GENAIR AND V3 ONLY)**

- Totally Enclosed Fan Cooled Sealed Generator
- No Brushes for Maintenance-Free Operation
- Automatic Voltage Regulation (AVR) Regulates to Within ± 2%
- 6.6 kW to 9.6 kW Producing 120 or 120/240V at a Constant 60 Hz
- Ground Fault Circuits and Outlet Panels Available to Meet Your Needs

### **DISCHARGE SYSTEM**

- Intank Coalescer System Provides Greater Surface Area for Increased Oil Separation
- Coalescer is Protected from the Elements, Eliminating the Possibility of Rust or Damage from External Source
- Less Prescribed Maintenance and Waste Oil Recovery Costs
- Less Than 2 PPM Oil Carryover
- Pressure Rated to 250 PSIG
- 5 Year Warranty or 3000 Hours for Replacement on Coalescer Element Only
- Smaller Tank Design Makes Installation Easier
- · Streamlined Fittings on the End of Tank
- · ASMA and CRN Certified

### RAMDRIVE PLUS™ SYSTEM

- Converted Transfer Case
- 1.25" Precision Ground Shaft with 5/16" Key
- Driveshaft Flange Bolts
- Re-usable Crate/packaging for Core Return
- High Speed Bearing
- Loctite Threadlocker

### **AIR FILTER**

- · ABS Plastic Housing
- Dual Stage

### **SAE B PAD**

· Limited to 77 Ft. Lbs.

### COOLER(S)

- Capable of Cooling Up to 200 CFM at Up to 175 PSI
- Air to Oil Heat Exchanger Driven by 12V Fan

### **INSTRUMENTATION**

### VANAIR TOTAL ELECTRONIC CONTROL SYSTEM (V-TEC™)

Diagnostic Monitoring Display Includes:

- Remote Engine Speed Control
- Built-In Safety Features
- Complete Startup & Shutdown Capabilities
- Oil Temperature & Air Pressure System Checks
- Troubleshooting & Maintenance Display Assistance & Alerts
- LCD

### **VANGUARD ROTARY SCREW COMPRESSOR OIL**

- Full Synthetic Oil Exclusively Created for Rotary Screw Compressors
- Flash Point: 257 °C/495 °F
- Pour Point: -45 °C /-50 °F
- · Outstanding Thermal and Oxidative Stability
- Reduced Oil Disposal Due to Extended Drain Intervals

### **SAFETY EQUIPMENT**

- High-Temperature Shutdown
- High-Pressure Shutdown
- Air Pressure-Relief Safety Valve
- Minimum Pressure Valve
- · Automatic Blowdown on Shutdown
- · Oil Fill Plug Safety Relief

### **OPTIONS/ACCESSORIES**

- · External, Spin-on Air-Oil Separating Element
- Dual Pressure
- Dual Voltage
- Service/Control Line Moisture Separators
- Filter/Lubricator/Regulator (FLR)
- · Air Hoses, Hose Reels, and Fittings
- OSHA Safety Valve (Velocity Fuse)
- Tool Oiler/Lubricator
- Biodegradable Vanguard Green™ Synthetic Oil

### **HYDRAULIC SYSTEM REQUIREMENTS**

All hydraulic ratings and pressures are at the machine and do not take into account the pressure drops of individual hydraulic systems. These pressure drops need to be taken into account and added to the rating of the hydraulic pump and components. Vanair highly recommends consulting a hydraulic supply expert for specifying the correct hydraulic pump size and type, oil reservoir size, hydraulic cooler, hydraulic pressure relief, and other hydraulic supply components for your application. Please take into consideration the following: the hydraulic flow and pressure requirements of the air compressor, the continuous hydraulic load when the compressor is running, the duty cycle and ambient operating temperatures, and any other hydraulic equipment that may share the same hydraulic supply system (Vanair recommends a dedicated pump and hydraulic circuit).

