



**VAN AIR®**  
MOBILE POWER SOLUTIONS®

# PTO Shaft & Hydraulic Driven Underdeck Systems



**RAM**



**FREIGHTLINER**

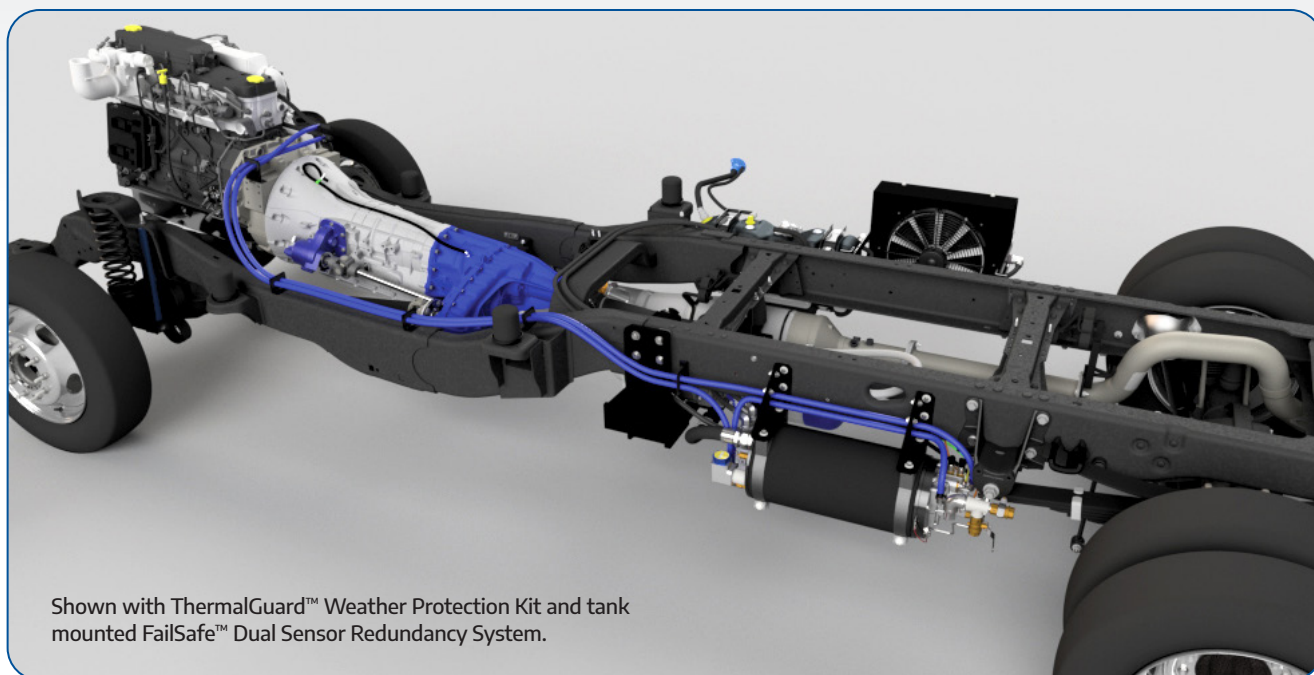
**KENWORTH**



**ISUZU**

# The Biggest Advancement in PTO Underdeck Systems in 50 Years!

The industry demanded higher dependability, greater durability, and lower life cycle cost. And we responded.



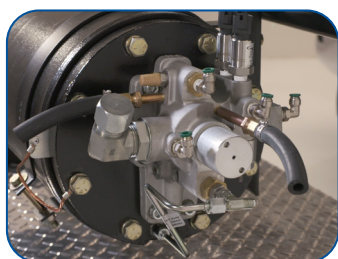
Shown with ThermalGuard™ Weather Protection Kit and tank mounted FailSafe™ Dual Sensor Redundancy System.

In 1972, Vanair® developed the world's first vehicle-mounted, PTO driven rotary screw air compressors, establishing the industry and meeting the demand for better mobile workplace productivity. We've built on our tradition of listening to our customers with the new PTO Underdeck Technology. The unprecedented innovations we've engineered into our systems answer your demand for improved reliability, increased uptime, and reduced life cycle cost. Available exclusively on Vanair®.

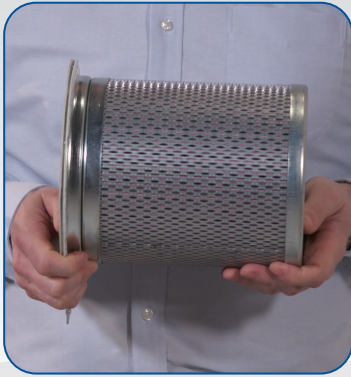


## Advanced and Streamlined Separation Tank with Integrated Manifolds

- Replaces outdated designs with built-in thermal valve, temperature thermistor, pressure relief valve, single and dual pressure regulators, oil filter assembly, and Ultrasonic oil level sensor option
- Integrates the components and manifold into the tank for faster installation plus more dependable and efficient performance with less maintenance
- JIC and O-Ring fittings for connecting points reduce leak points by over 60%
- Sensors can be remotely mounted in a weatherproof enclosure for protection from the environment
- Assured anti-static grounding system







## UltraLife™

6000 Hour Air/Oil Separator Element

- Innovative design offers the lowest cost of ownership in the industry
- 6 times more life than the nearest competitor's spin-on coalescer element
- 15 times more life than an underhood design means the coalescer will last longer than the life cycle of your vehicle
- Assured anti-static grounding system



## V-TEC II▶

Vanair Total Electronic Control

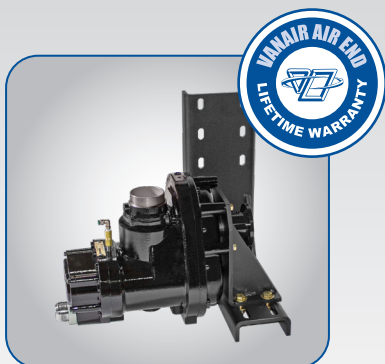
The newly designed V-TEC® II Control System provides clear, informative, and intuitive operation, as it automatically controls all the new features. Other advantages include:

- Infinitely variable to reduce fuel, noise, and wear and tear on the engine
- Reliable harnesses and simplified wiring
- All harnesses are designed and tested in accordance with IPC/WHMA-A-620C standard
- Utilizes Deutsch waterproof connectors for ALL connections
- Easy plug and play for faster installs and straightforward diagnostics
- Unique Torque Management for a soft, smooth engagement of the PTO, protecting the system and driveline
- Onboard diagnostics and prescribed maintenance intervals
- USB updatable and rugged IP67 rated weatherproof display with low-light and bright light viewability
- No third-party programming required



## The New Brushless Fan Compressor Oil Cooler Package with Thermal Protection

- Industry-leading 40,000 hour design life
- Certified IP68 weatherproof brushless fan with built-in thermal protection eliminates the need for fan relays



## Sullair® Air End

The Sullair® Air End is manufactured in the USA and recognized throughout the world as the most durable rotary screw air compressor on the market. In addition to its unmatched dependability and lifetime warranty, our air end offers:

- 110,000 hour design life
- Lowest input speeds on the market. Lowest input speed = lowest engine RPM.
- Over 18 standard gear ratios available for greater efficiency for lower horsepower requirements and noise reduction
- 100% duty cycle
- Integrated inlet control valve

## Optional Features



### **FailSafe™** PATENT PENDING Dual Sensor Redundancy System

- Patent-Pending FailSafe™ Dual Sensor Redundancy option provides backup in case critical sensors fail
- Virtually eliminates downtime for increased uptime



### **ThermalGuard™** PATENT PENDING Weather Protection Kit

- Patent-Pending ThermalGuard™ uses the vehicle's warm engine coolant to preheat the compressor oil and regulators to prevent oil-starvation and freeze-ups during cold conditions
- Aids in the elimination of moisture
- Arrives at the worksite without thick, cold oil or frozen regulators to compromise the compressor operation
- No moving parts or problematic electrical connections



### **Ultrasonic Oil Level Sensor** PATENT PENDING

- Increased reliability readings over other types of oil sensor technology
- No moving parts
- Fully protected in a stainless steel encased sensor housing



## 10 Year Comparative Prescribed Maintenance Life Cycle Costs

*It All Adds up to Vanair® Keeping You Out of the Red*

### Prescribed Maintenance Oil



Price per gallon	\$70.00
Gallons per oil change	x 3.50
Cost per oil change	\$245.00
# of oil changes/10 yr vehicle life	x 10

Total oil change cost **\$2450**

### Nearest Competitor

Price per gallon	\$86.66
Gallons per oil change	x 4.75
Cost per oil change	\$411.64
# of oil changes/10 yr vehicle life	x 20

**Generates 65 more gallons of waste oil than Vanair®**

Total oil change cost **\$8232.70**



Vanair® saves you **\$5782.70** in oil costs per vehicle over 10 years

### Prescribed Maintenance Coalescer



# of filter changes/10 yr vehicle life	x 0
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Total coalescer cost **\$0**

### Nearest Competitor

Coalescer filter price	\$182.77
# of filter changes/10 yr vehicle life	x 10
Total coalescer	\$1827.70

Total coalescer cost **\$1827.70**



Vanair® saves you **\$1827.70** in coalescer costs per vehicle over 10 years

## The Prescribed Maintenance Savings Add Up!

**\$7610.40**  
1 vehicle/10 years



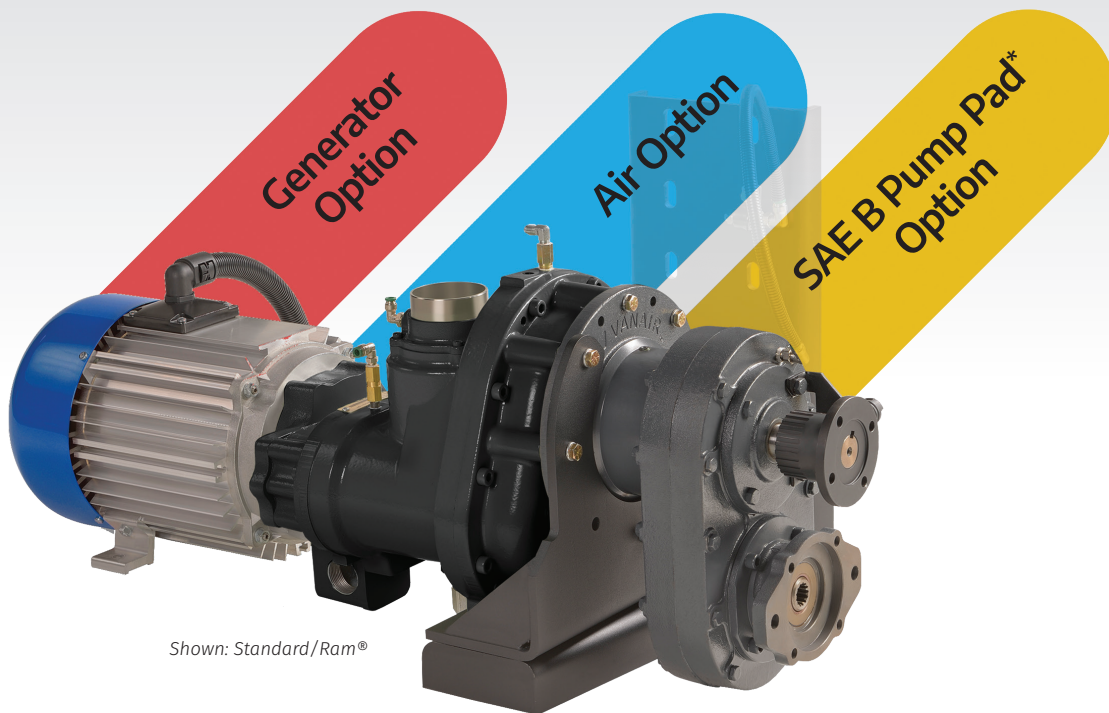
**\$76,104**  
10 vehicle/10 years



**\$152,280**  
20 vehicle/10 years

Based on each manufacturer's recommended rotary screw oil and coalescer change schedule and assumes 500 hours compressor use per year.

# What kind of power do you need?



Shown: Standard/Ram®

## UDSM Air Only

PTO Shaft Driven	Air (CFM) 60, 85, 125, 160, 185, 200 or 300	Air (PSI) 100-250
Hydraulic Driven	Air (CFM) 60, 85, 125, 160 or 185	Air (PSI) 100-150

## Xcite™ Generator Only

PTO Shaft Driven	Output (kW) 6.8, 10, 16.9, 20 or 25	Voltage 120 or 120/240
Hydraulic Driven	Output (kW) 4, 7.5, 8.5, 10, 12 or 15	Voltage 120 or 120/240

## Genair® Air & Generator

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
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## V2™ Air & Hydraulic

PTO Shaft Driven	Air (CFM) 125, 160 or 185	Air (PSI) 100-150	SAE B Pump Pad* 77 Ft. Lbs.
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## V3™ Air, Generator & Hydraulic

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	SAE B Pump Pad* 77 Ft. Lbs.
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\*Pump Sold Separately



# Complete Underdeck Kits

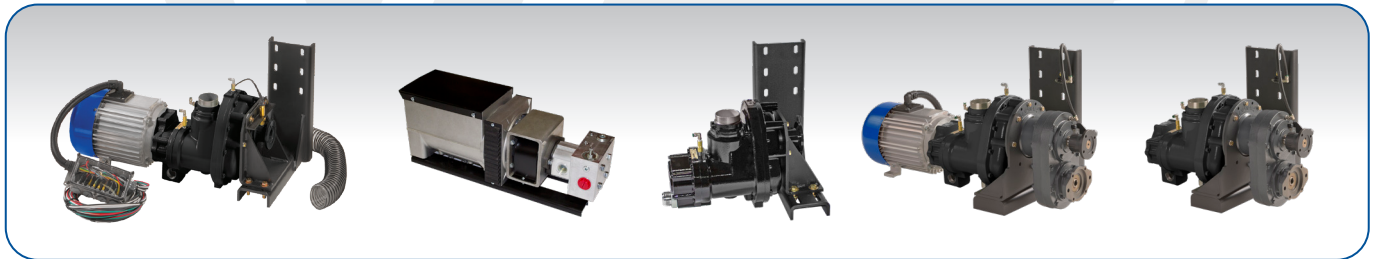
Each Vanair underdeck kit is specific to the make and model of your vehicle. All kits for trucks contain the following items plus the power unit, such as an air compressor or generator that you select.

- Power unit
- Advanced manifold with UltraLife™ 6000 hour coalescer
- New brushless fan compressor oil cooler package with thermal protection
- Air filter assembly
- Redesigned V-TEC™ II display and compressor control system
- Vanguard rotary screw compressor oil
- Hosing
- Valving

## All Kits Contain (except Xcite generators)



## + Power Units



## + Optional Features



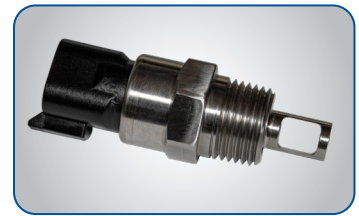
**FailSafe™**  
Dual Sensor Redundancy System



Remote Mount  
Sensors



**ThermalGuard™**  
Weather Protection Kit



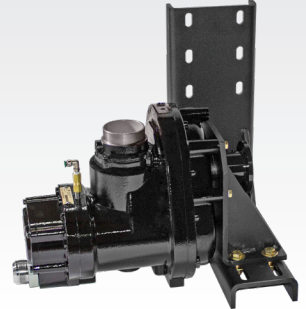
Ultrasonic Oil Level Sensor

# Why PTO?

Half the price of a tow-behind | Extra bed space  
Increased maneuverability | Tier 4F Compliant  
Less maintenance | Freed up hitch | Reduced weight

Utilizing the vehicles 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. Using a single PTO opening and mounted seamlessly out of sight, under the vehicle, these systems provide up to 300 CFM\* of impressive air power, AC power or hydraulics, or any combination of all three.

## UDSM PTO AIR COMPRESSORS



### PTO SHAFT DRIVEN AIR COMPRESSOR

AIR COMPRESSOR								
Capacity (CFM)	60	85	125	160	185	200	200	300
Air (PSI)	100-150	100-150	100-150	100-150	100-150	100-150	200	250
Compressor Input (RPM)	1030	1460	1330	1675	1920	2075	2075	2475
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5	2.5	2.5	2.5	2.5	10

Dry Weight (Lbs.): 328 (60-85 CFM), 407 (125-200 CFM).



### RAM 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
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5	2.5

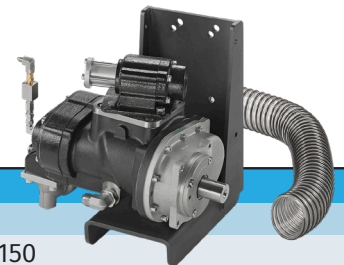
Dry Weight (Lbs.): 407 (125-200 CFM)



### Ford PTO SHAFT DRIVEN AIR COMPRESSOR

AIR COMPRESSOR				
Capacity (CFM)	100	125	160	185
Air (PSI)	100-150	100-150	100-150	100-150
Compressor Input (RPM)	1595	1625	2085	2370
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5	2.5

Dry Weight (Lbs.): 358 (min) - 399 (max)



### HYDRAULIC DRIVEN AIR COMPRESSOR

AIR COMPRESSOR					
Capacity (CFM)	60	85	125	160	185
Air (PSI)	100-150	100-150	100-150	100-150	100-150
Hydraulic Flow (GPM)	17.0	23.5	27.6-29.2	36.8-38.3	42.2-44.2
Hydraulic Pressure (PSI)	2300-2800	2300-2700	2100-2620	2200-2700	2400-2830
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5	2.5	2.5

Dry Weight (Lbs.): 428 (60-85 CFM), 453 (125-160 CFM), 453-491 (185 CFM)



\*Contact Vanair for 200+ CFM system





## RAM 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
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5

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

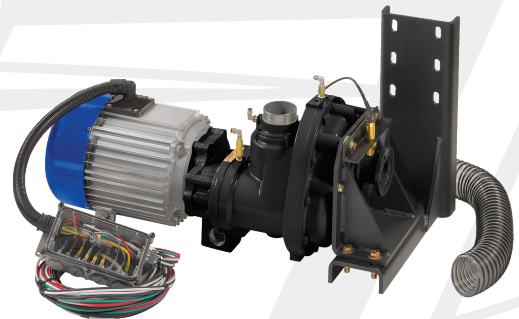
# GENAIR®



RAM



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## PTO SHAFT DRIVEN AIR COMPRESSOR & GENERATOR

AIR COMPRESSOR			
Capacity (CFM)	125	160	185
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1535	1880	2160
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5

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

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

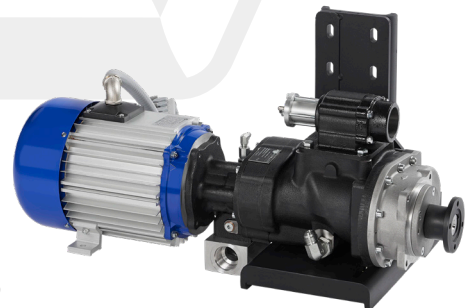


## PTO SHAFT DRIVEN AIR COMPRESSOR & GENERATOR

AIR COMPRESSOR		
Capacity (CFM)	125	160
Air (PSI)	100-150	100-150
Compressor Input (RPM)	1940	2435
Oil Capacity (Gal.) Initial Fill	2.5	2.5

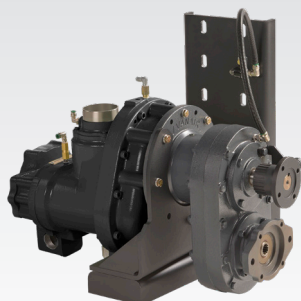
Dry Weight (Lbs.): 449(min.) - 510(max.)

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





MULTI-DRIVE SYSTEM™



PTO SHAFT DRIVEN  
AIR COMPRESSOR  
& SAE B PUMP PAD

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

AIR COMPRESSOR			
Capacity (CFM)	125	160	185
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1330	1675	1920
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5

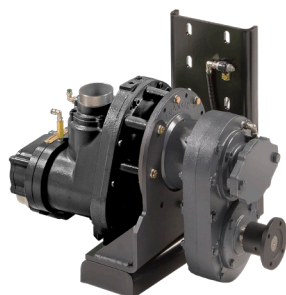
Dry Weight (Lbs.): 473(min.) - 514(max.)



**RAM**

AIR COMPRESSOR			
Capacity (CFM)	125	160	185
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1730	1675	1920
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5

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



PTO SHAFT DRIVEN  
AIR COMPRESSOR  
& SAE B PUMP PAD

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



AIR COMPRESSOR			
Capacity (CFM)	125	160	175
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1730	2175	2495
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5

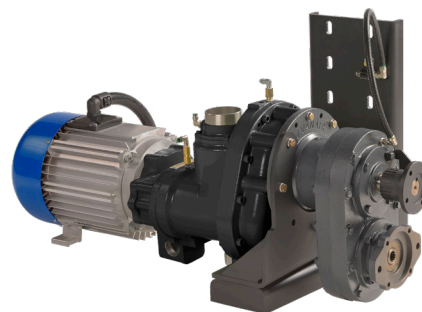
Dry Weight (Lbs.): 473(min.) - 514(max.)



MULTI-DRIVE SYSTEM™



**RAM**



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

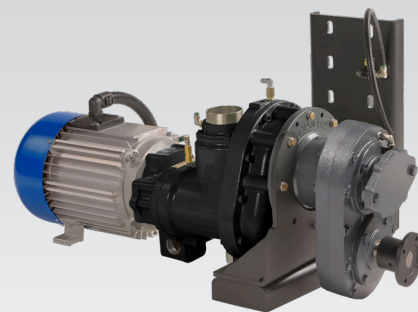
AIR COMPRESSOR			
Capacity (CFM)	125	160	185
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1535	1880	2160
Oil Capacity (Gal.) Initial Fill	2.5	2.5	2.5

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

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

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





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

AIR COMPRESSOR			
Capacity (CFM)	125	160	175
Air (PSI)	100-150	100-150	100-150
Compressor Input (RPM)	1900	2325	2500
Oil Capacity (Gal.)	Initial Fill 2.5	2.5	2.5

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

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

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

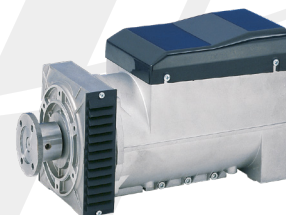
## XCITE™ PTO GENERATORS



**RAM**



**ISUZU**



## PTO SHAFT DRIVEN GENERATOR

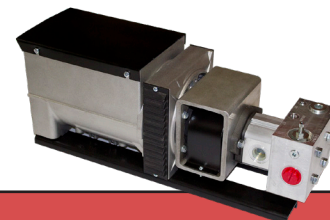
GENERATOR					
kW	6.8	10	16.9	20	25
Voltage	120 or 120/240	120 or 120/240	120 or 120/240	120 or 120/240	120 or 120/240
Phase	Single	Single	Single	Single	Single
AMPS	54/27	84/42	140/70	166/83	208/104
Speed (RPM)	1800	1800	1800	1800	1800
Weight (Lbs.)	80	123	270	295	339

Dimensions (In.): 12H x 11.5W x 17L (6.8 kW - 10kW), 12H x 12W x 24L (16.9 kW), 12H x 12W x 25L (20 kW - 25 kW)  
Consult factory for additional kW options

## HYDRAULIC DRIVEN GENERATOR

4 kW, 7.5 kW and 8.5 kW available for Ford® Super Duty 350/450/550 models

All options available for Ford® Super Duty 650/750 models



GENERATOR						
kW	4	7.5	8.5	10	12	15
Voltage	120 or 120/240	120 or 120/240	120 or 120/240	120 or 120/240	120 or 120/240	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

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

## Additional Options/Accessories



### **FILTER LUBRICATOR REGULATOR (FLR)**

Controls pressure and adds lubricant to the compressed air system.



### **MOISTURE SEPARATOR**

A filter to remove harmful oil/water condensate, pipe scale, dirt and rust from your compressed air system.



### **AIRLINE DE-ICER**

Durable dispensing unit to help prevent airlines from freezing.



### **AFTERCOOLER WITH BRACKET**

Heat exchanger for cooling the discharge from an air compressor. Removes moisture captured in the compressed air.



### **TOOL LUBRICATOR**

Device to lubricate the air tool assembly.



### **HOSE REEL WITH HOSE**

Retractable, spring-loaded steel hose reel with hose, rated for maximum compressor output.



800.526.8817 | [vanair.com](http://vanair.com)



| *Vanair's* **There**

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