

# **Gardner Denver**

ENVIROAIRE T37-74 & TVS37-74 | 50-100 HP  
OIL-FREE TWO-STAGE FIXED & VARIABLE SPEED ROTARY SCREW COMPRESSOR

## **EnviroAire T/TVS**



# Gardner Denver: A History of Excellence

Founded in 1859, Gardner Denver has been meeting the demand for compressed air equipment for more than 160 years. Ingrained in our DNA is the desire to push the limits of technology by designing and manufacturing the most advanced, reliable and energy-efficient products available in the market place today. Today's Gardner Denver compressors run quieter, are more efficient and last longer than ever before. The new EnviroAire T/TVS 37-74 kW Series are a continuation in our long heritage of compressed air products.



# Reliability + Performance = **Peace of Mind**

The EnviroAire T/TVS 37/45/55/74 Series compressors are designed to take the punishment of 24/7/365 usage under the most adverse conditions. Here are a few of the many standard features that ensure 100% reliable operation:

- **Class 0 100% Oil Free – Zero Risk of Contamination**
- RotorArmor™ airend rotor and housing coating – improves efficiency and extends airend longevity
- Stainless steel 2nd stage airend rotors – extends airend longevity
- Stainless steel discharge air piping (1st and 2nd stage) – improves corrosion resistance
- Auto restart after power failure – reduces downtime
- TEFC cooling fan – prevents dirt and water ingress
- Quiet enclosure – reduces sound levels
- GD Pilot S Controller – precision control and monitoring provides peace of mind
- Up to 115°F operation – built for the harshest environments
- Compact footprint – reduces floor space requirement

ELIMINATE  
THE RISK

GUARANTEED  
100% OIL-FREE  
ISO CLASS: ZERO



# Rugged & Reliable EnviroAire T Series

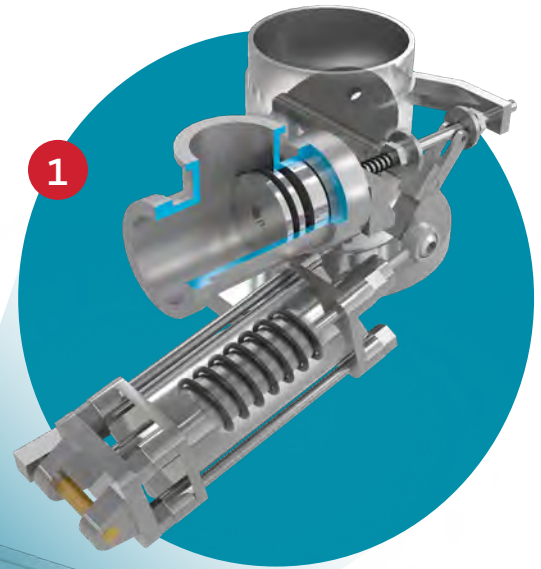
For applications where demand is relatively constant and a variable speed compressor is not needed, the EnviroAire T Series is the perfect fit. All EnviroAire T Series compressors have the following features:

- TEFC NEMA premium efficiency motor
- Wye-Delta starter reduces motor starting current, lowers peak power demand
- Hydraulically actuated inlet valve
  - Butterfly style valve - eliminates diaphragm service/replacement
  - Full flow - less restrictive than diaphragm style valve to reduce pressure drop
  - Rugged heavy duty design - provides years of trouble free operation
  - Inlet valve and blow down valve mechanically interlocked - handles heavy cycling
  - Hydraulic actuation - significantly improves reliability
- Available pressure variants: 100 psig, 125 psig, 150 psig



## 1 Inlet Valve

- Low pressure drop butterfly valve
- Heavy duty hydraulic cylinder actuator
- Rugged blow down valve
- Reliable mechanically linked inlet and blow down valves



- 2 99.5% efficient 3 micron **heavy duty air filter** element
- 3 Robust poppet style **non-return valve**
- 4 Long life **oil filter**
- 5 **Flexible cooler connections** eliminate failures
- 6 **Condensate separator** with auto drain
- 7 **GD Pilot S** compressor controller

Adaptive &  
Energy-Saving  
EnviroAire  
TVS Series



Not all applications have a constant demand level for compressed air. For those varying type demands, an EnviroAire TVS Series compressor can provide a reliable compressed air supply while adjusting its speed to provide lower flows when demand is light and higher flows when demand is greatest. The ability to vary the speed to match the demand is what makes the EnviroAire TVS Series the perfect energy efficient fit for these applications.

- Hybrid permanent magnet ODP motor
  - Higher efficiency - reduces energy costs up to 28% versus standard inverter duty motor
  - Cooler operation - increases longevity and reliability
  - Increased torque - reduces motor fatigue
  - Simple design - no motor bearings or seals to wear out
  - No motor coupling - increases reliability and reduces service requirement
  - Smaller size - saves space and weight
  - Unity power factor - reduces energy loss typical of standard inverter duty motors
  - 100% maintenance free - no lubrication or service required
- Modular VFD drive includes power module with integral DC choke
- Available pressure variants: 100 psig, 125 psig, 150 psig

THE PERFECT  
Energy-Efficient  
FIT FOR  
FLUCTUATING  
DEMAND



# Reduce the Cost of Ownership

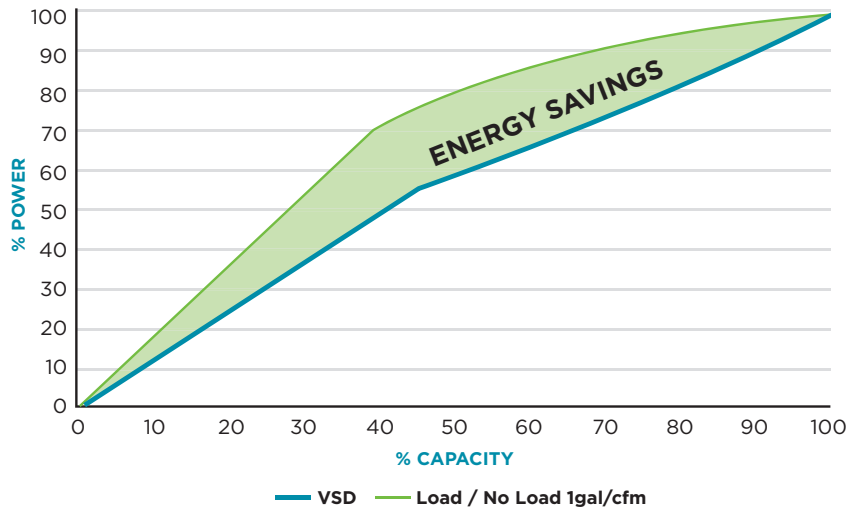
## Minimize Your Energy Consumption

The largest cost component of a compressor during its lifetime is the power required to operate it.

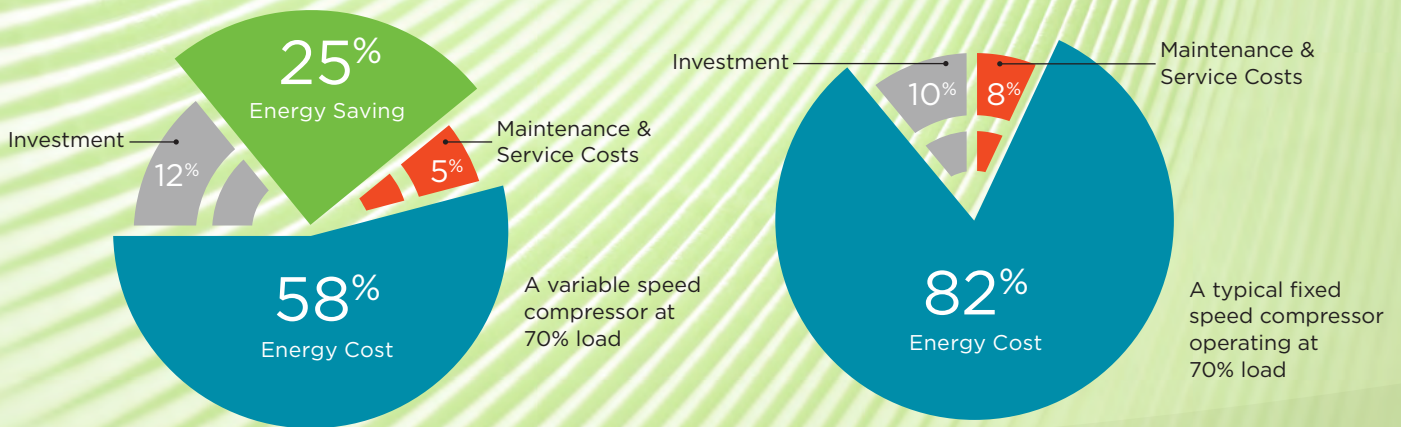
## Perfect Response to Your Individual Air Demand

Variable speed compressors from Gardner Denver can efficiently and reliably handle varying air demands. The right variable speed compressor in the right application delivers significant energy savings while providing a stable air supply at constant pressure.

ENERGY SAVINGS with a Variable Speed Drive



## Variable Speed vs. Fixed Speed



Using a variable speed compressor can easily **save 25% energy** by using just the right amount of energy required to do the job and no more.



# The Choice is Yours: T versus TVS Series

Production facilities come in all shapes and sizes and so do their air demands. Gardner Denver offers compressors to meet whatever your requirements might be. Some plants have a relatively constant demand for compressed air day-in and day-out while other plants may have both high and low demand throughout each and every day.

## Constant Demand Application

Fixed speed compressor (T Series) provides:

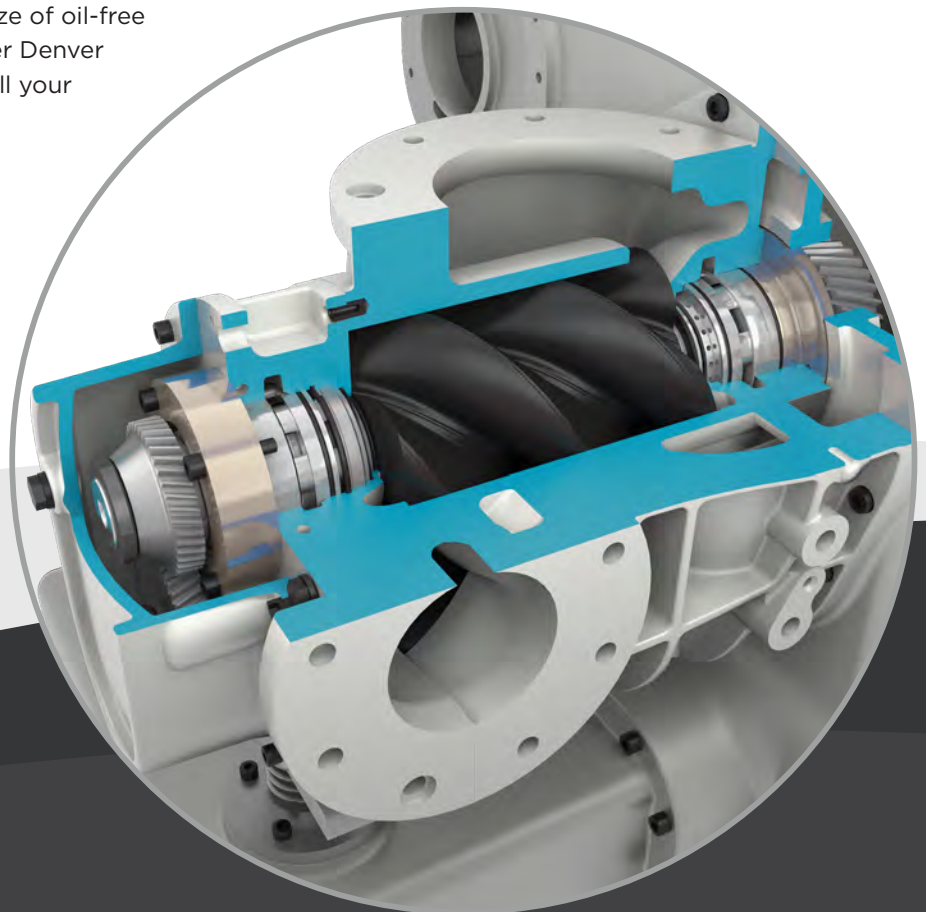
- Highest energy efficiency in a constant demand application
- Lowest purchase cost

## Fluctuating Demand Application

Variable speed compressor (TVS Series) provides:

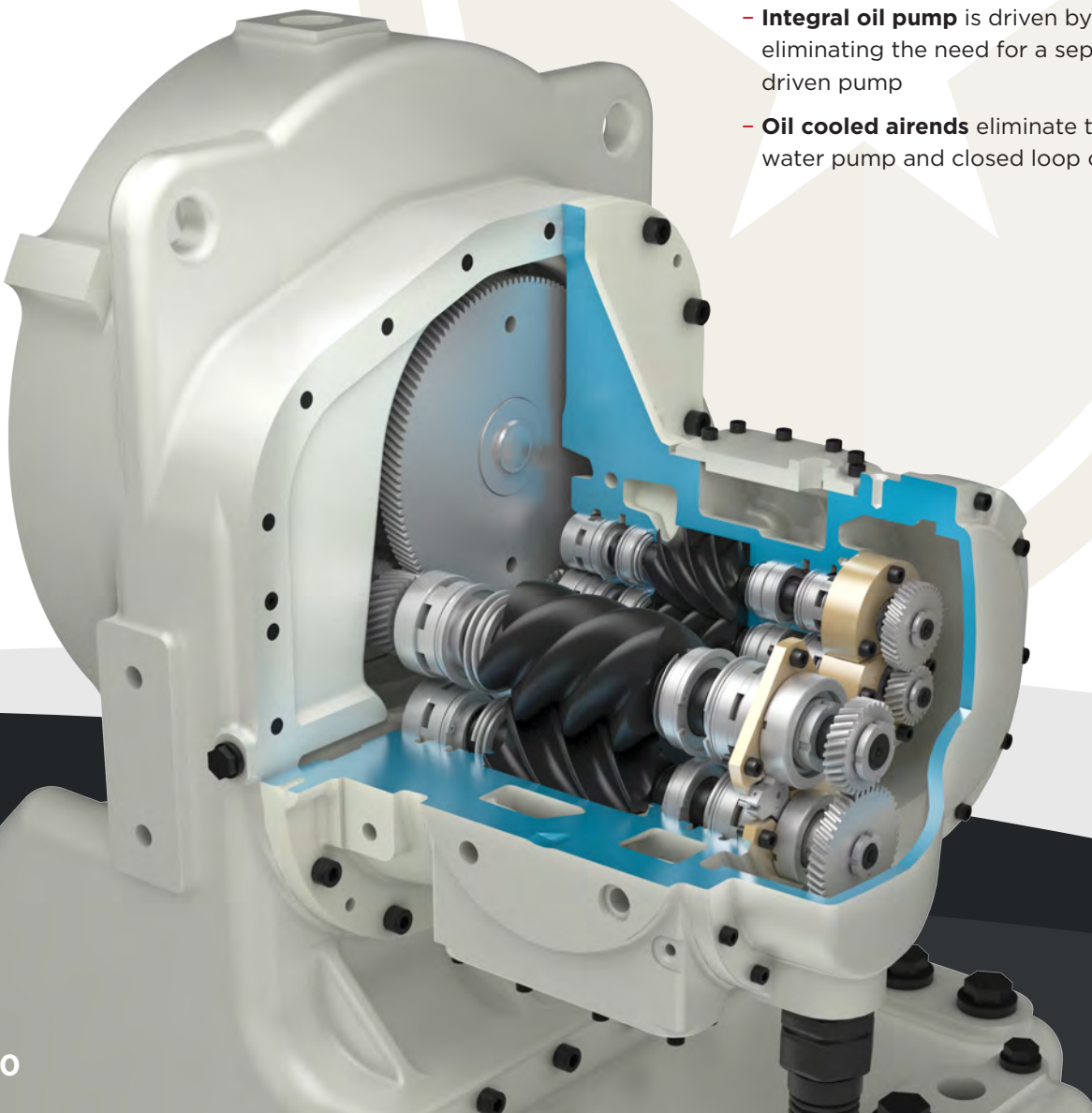
- Highest energy efficiency in a fluctuating demand application
- Reduced compressor wear and tear
- Less compressor cycling

The choice of fixed or variable speed is only one of many system considerations for providing quality compressed air. When it comes to selecting the right type and size of oil-free compressor, experience matters. Gardner Denver distributors are your go-to-experts for all your compressed air needs and can help you select the best compressor as well as downstream equipment to handle your specific application.



## All Airend Coatings Are **Not** the Same

- Dry screw airend housings and rotors are coated to:
  - Prevent corrosion
  - Maximize efficiency
  - Provide optimum protection against rotor wear
- Not all coatings are the same! GD RotorArmor™ creates both a chemical and mechanical bond to the rotor and housing to ensure maximum efficiency and protection under extreme conditions
- Other manufacturers use a two-part process with a soft second layer Teflon-Graphite coating which ensures good sealing on day one, but rapidly wears, reducing performance by 10% or more
- EnviroAire: Guaranteed maximum efficiency throughout the compressor life
- Both the fixed and VSD airends have these standard features:
  - **Stainless steel 2nd stage rotor** offers maximum corrosion protection
  - **GD RotorArmor™** is a high performance rotor and housing coating designed to improve airend performance and extend airend life
  - **Integral oil pump** is driven by airend jackshaft eliminating the need for a separate motor driven pump
  - **Oil cooled airends** eliminate the need for a separate water pump and closed loop cooling system



# Energy Saving Performance Delivered

Gardner Denver EnviroAire T/TVS Series compressors utilize state-of-the-art design and manufacturing to ensure very tight tolerances thereby reducing loss. In addition, the rotors and housing are covered with GD RotorArmor™ which ensures long-lasting performance. This combination results in little or no performance decay even after 40,000 hours of operation, saving thousands in utility expenses.

## \$10,000

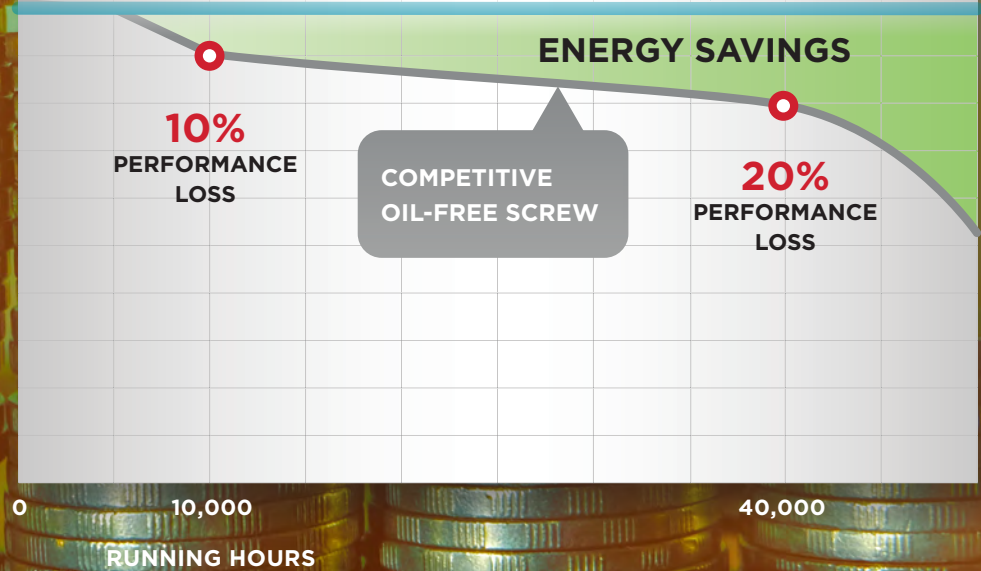
SAVINGS PER  
YEAR

The EnviroAire T/TVS Series can offer a 20% or more reduction on operating costs, when compared to a competitive dry screw compressor. For example, for a 100 HP compressor, that could amount to \$10k or more in electricity savings per year!

GD ENVIROAIRE  
T/TVS SERIES

### PERFORMANCE OVER TIME

PERCENTAGE OF INITIAL CAPACITY



10%

PERFORMANCE  
LOSS

COMPETITIVE  
OIL-FREE SCREW

20%

PERFORMANCE  
LOSS

0

10,000

RUNNING HOURS

40,000

# GD Pilot S: User Friendly Control

The GD Pilot S with its 5.7" high resolution color display is intuitive and easy to navigate. All functions are clearly structured into **8 main menu tabs** across the top of the display, selectable by using the cursor controls on the bottom right of the controller.

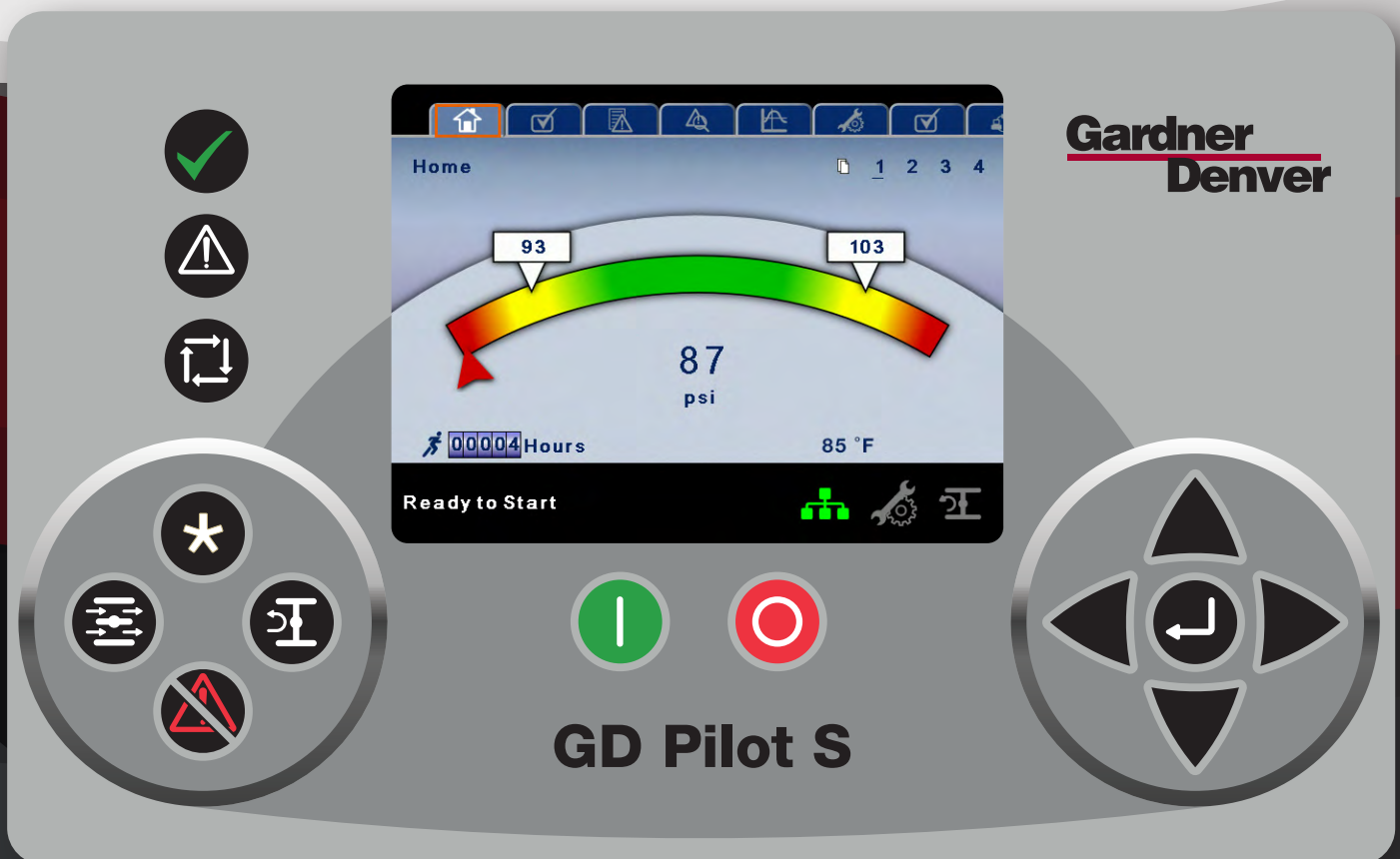
The multilingual GD Pilot S control system ensures reliable operation and protects your investment by continuously monitoring the operational parameters of the compressor, essential for reducing your operating costs.

With the ability to display detailed system analysis in the form of trend graphs, operating parameters can be precisely set to maximize the efficiency of the compressor.



## Functions & Features

- 3 LED status indicators - provides immediate visual compressor status
- Tabbed page layout - makes navigation faster and easier
- Graphing of more than 30 parameters - improves system optimization
- Convenient maintenance timers - ensure timely service reminders
- Auto restart after power failure
- Remote pressure input
- Remote start/stop
- Remote load/unload
- Consumable monitoring
  - Lubricant filter
  - Inlet air filter
  - Bearing oil level monitoring
- ModBus RS-485 interface - enables connection to building management system
- Ethernet port - allows web enabled control via tablet, laptop or mobile device
- USB service port - field service tool access
- Data collection via SD card - up to 30 days



# Sales & Service **Distributors** Across America

## An Extensive Network

By leveraging the extensive network of Gardner Denver factory-trained authorized local distributors, your sales, service, and technical support needs can be handled quickly and easily.



## Best **Warranty** in the Industry

### Experience Peace of Mind

The engineering philosophy of Gardner Denver ensures long-lasting, reliable equipment. Our simple, but bold warranty programs demonstrate our belief in the quality found in Gardner Denver compressors.

Our standard 2-year warranty ensures that you have peace of mind when it comes to your system's operation. For added protection, take advantage of our 5-year extended airend warranty program. Simply stated, it's the best in the industry.



To find a distributor visit:  
[www.gardnerdenver.com/gdproducts/](http://www.gardnerdenver.com/gdproducts/)

# EnviroAire Technical Data

## FIXED SPEED MACHINES, 50 & 60 HZ

MODEL	COOLING METHOD	DRIVE MOTOR		NOMINAL PRESSURE		FAD*		NOISE LEVEL**	WEIGHT		DIMENSIONS L x W x H IN. (MM)
		HP	KW	PSIG	BAR	ACFM	M <sup>3</sup> /MIN		LBS	KG	
T37	Air	50	37	100 125	6.9 8.6	216 186	6.1 5.3	76	5110	2318	88.5 x 54.0 x 75.4 (2248 x 1372 x 1914)
	Water	50	37	100 125	6.9 8.6	216 186	6.1 5.3				
T45	Air	60	45	100 125	6.9 8.6	268 232	7.6 6.6	76	5364	2433	
	Water	60	45	100 125	6.9 8.6	268 232	7.6 6.6				
T55	Air	75	55	100	6.9	336	9.5	76	5364	2433	
				125	8.6	290	8.2				
	150	10.3	268	7.6							
T55	Water	75	55	100	6.9	336	9.5				
				125	8.6	290	8.2				
	150	10.3	268	7.6							
T74	Air	100	75	100	6.9	424	12.0	76	5500	2495	
				125	8.6	411	11.6				
	150	10.3	390	11.0							
T74	Water	100	75	100	6.9	424	12.0				
				125	8.6	411	11.6				
	150	10.3	390	11.0							

## VARIABLE SPEED MACHINES, 50 & 60 HZ

MODEL	COOLING METHOD	DRIVE MOTOR		NOMINAL PRESSURE		FAD*		NOISE LEVEL**	WEIGHT		DIMENSIONS L x W x H IN. (MM)
		HP	KW	PSIG	BAR	ACFM	M <sup>3</sup> /MIN		LBS	KG	
TVS37	Air	50	37	100 125	6.9 8.6	200 179	5.7 5.1	65-74	3481	1579	81.9 x 43.9 x 81.5 (2080 x 1115 x 2070)
	Water	50	37	100 125	6.9 8.6	200 179	5.7 5.1	63-69	3580	1624	
TVS45	Air	60	45	100 125	6.9 8.6	237 219	6.7 6.2	65-74	3481	1579	
	Water	60	45	100 125	6.9 8.6	237 219	6.7 6.2	63-69	3580	1624	
TVS55	Air	75	55	100	6.9	331	9.4	76-80	4502	2042	
				125	8.6	299	8.5				
	150	10.3	269	7.6							
TVS55	Water	75	55	100	6.9	331	9.4				
				125	8.6	299	8.5				
	150	10.3	269	7.6							
TVS74	Air	100	75	100	6.9	435	12.3	76-80	4502	2042	
				125	8.6	400	11.3				
	150	10.3	368	10.4							
TVS74	Water	100	75	100	6.9	435	12.3				
				125	8.6	400	11.3				
	150	10.3	368	10.4							

\* Data measured and stated in accordance with ISO1217 4th Edition Annex C and E at the following conditions:  
Air Intake Pressure: 1 bar a / 14.5 psi, Air Intake Temperature: 20°C / 68°F, Humidity: 0% (dry)

\*\* Measured in free field conditions in accordance with the ISO 2151, tolerance ± 3 dB(A)

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by continuously improving all business processes  
with a focus on innovation and velocity

**Gardner  
Denver**<sup>®</sup>


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