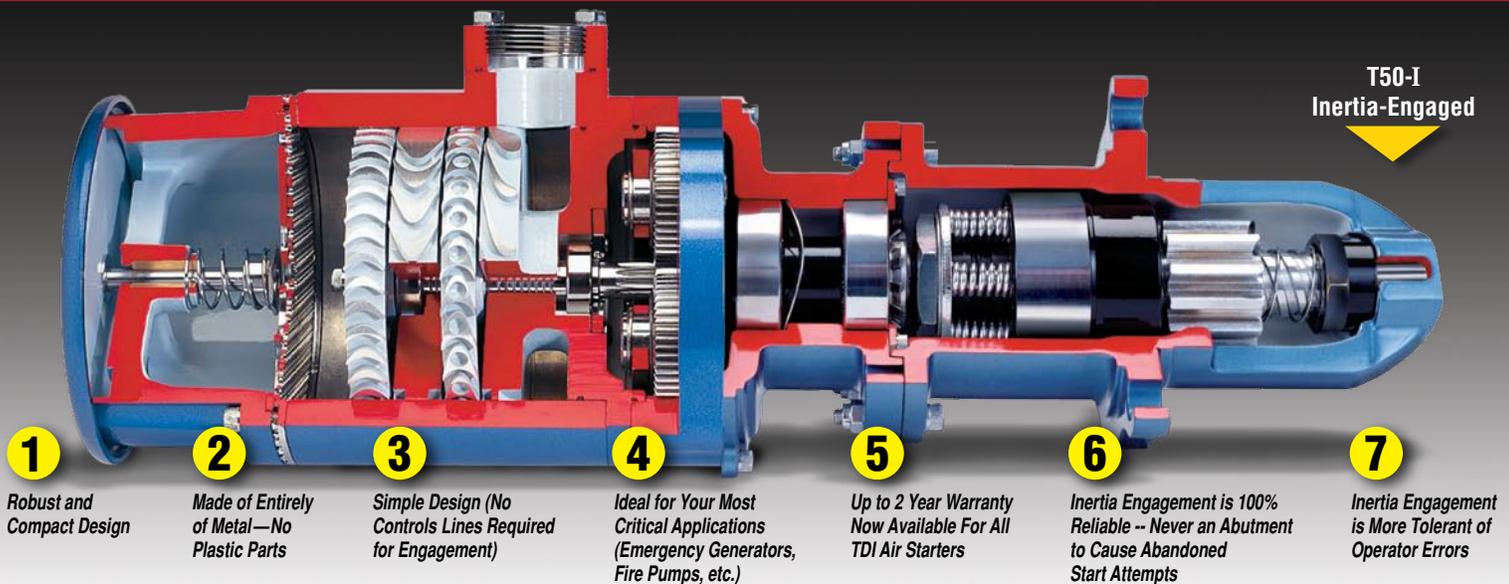


# TURBOTWIN™ T50 Series Turbine Air Starters



1

Robust and Compact Design

2

Made of Entirely of Metal—No Plastic Parts

3

Simple Design (No Controls Lines Required for Engagement)

4

Ideal for Your Most Critical Applications (Emergency Generators, Fire Pumps, etc.)

5

Up to 2 Year Warranty Now Available For All TDI Air Starters

6

Inertia Engagement is 100% Reliable -- Never an Abutment to Cause Abandoned Start Attempts

7

Inertia Engagement is More Tolerant of Operator Errors

T50-I  
Inertia-Engaged

Also Available As Pre-Engaged (See Other Side)



*“The new T50-I is ideal for marine applications & mine haul trucks previously using TDI 52 Series Starters!”*

## T50 IS DESIGNED FOR 20-80 LITER ENGINES IN THE WORLD'S DIRTIEST, MOST CHALLENGING ENVIRONMENTS

The vaneless motor used in the T50 Series Turbine Air Starters resist contaminants, moisture, pipe scale and other environmental elements that cause other starters to fail. Contaminated air that clogs and shuts down lesser starters, has little effect on TDI's "open-air path" turbine air motor, which allows contaminants to pass right through. For contaminated air applications, the T50-P and T50-I have no equal.

### Lightweight Starters Simplify Installation

T50 is the lightest air starter in its class. In tight quarters or in overhead installations on mine haul trucks, the T50 is easily handled by one-man. Mechanics and most maintenance personnel appreciate the T50's ultra-light & compact envelope.

### More Power from TURBOTWIN™

Expect up to 25% more starting power from TURBOTWIN™, even in sub-zero weather or sweltering heat. From 50-70 hp and 260 ft./lbs. of starting power is available at only 100 psig. The T50 "best in class" hp/torque per unit of air make the T50 a powerhouse.

### Less Mess

No added lubrication required. That says it all.

### Get More Crank From Your Tank

The TURBOTWIN™ T50 offers the most power and torque per unit of air. On mining trucks or on agency certified marine applications, even on a limited fixed air volume, TURBOTWIN™ gets your engine started fast, or repeatedly... often with air to spare.

### Install It and Forget It

The industry's longest-lasting starter uses better-quality parts and a superior motor design which is tolerant of abuse or poor maintenance, and still delivers the reliability you need. It's that simple.

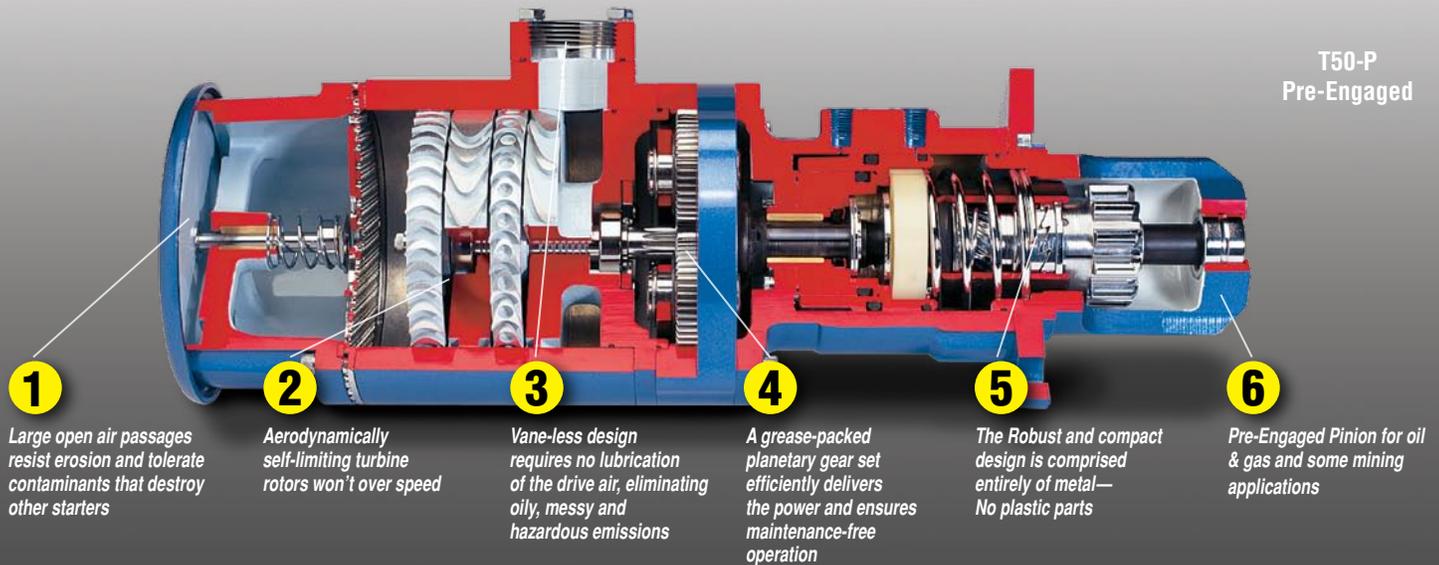
**TDI**  
TECH DEVELOPMENT

ANYTHING LESS THAN A TURBOTWIN™ IS A COMPROMISE

6800 Poe Ave. • Dayton, OH 45414  
Tel: 937-898-9600 • Fax: 937-898-8431  
[www.tdi-turbotwin.com](http://www.tdi-turbotwin.com)

# TURBOTWIN™ T50 Series Turbine Air Starters

T50-P  
Pre-Engaged



1

Large open air passages resist erosion and tolerate contaminants that destroy other starters

2

Aerodynamically self-limiting turbine rotors won't over speed

3

Vane-less design requires no lubrication of the drive air, eliminating oily, messy and hazardous emissions

4

A grease-packed planetary gear set efficiently delivers the power and ensures maintenance-free operation

5

The Robust and compact design is comprised entirely of metal—No plastic parts

6

Pre-Engaged Pinion for oil & gas and some mining applications

**Also Available As Inertia-Engaged (See Other Side)**

## BECAUSE ENGINE AVAILABILITY DEPENDS ON THE START SYSTEM

T50-P (pre-engaged) and T50-I (inertia-engaged) are versatile, mid-size turbine air starters designed for a wide variety of challenging applications like mine haul truck environments, work boats where pipescale and damp salty air have effected starters, or remote oil and gas fields where downtime can costs hundreds of thousands of dollars.

### Engine Reliability Begins with The Start System

Engine starting is the most critical factor for assuring your engine is ready and available when you need it. TDI TURBOTWIN™ Air Starters are the industry's standard for long-lasting reliability. Ask the mechanics who install them and you'll find that no other starter lasts as long, delivers more starts, and withstands the harshest environments better than TURBOTWIN™.

### The Unspoken Nature of TurboTwin Reliability

You hear about air starters when they don't work. That's why the unsurpassed reliability of the T50 often goes unnoticed. Things like... No maintenance. No replacing starters every 6 months.

Specifications	T50-I (Pre-Engaged)	T50-I (Inertia-Engaged)
Engine Size & Application	Up to 4,882 CID (80 Liters)	Up to 4,882 CID (80 Liters)
Engagement Type	Pre-Engaged	Inertia-Engaged
Applications	Mining, Oil & Gas	Mining, Marine
Replacement For	NA	P/N: 5-52747-016-0-A0
Common Pinion Config.	6/8 Pitch, 11 Teeth	6/8 Pitch, 12 Teeth
Mounting	SAE 3	SAE 3
Power	49 hp @ 100 psig 37 kW @ 6.9 BAR	49 hp @ 100 psig 37 kW @ 6.9 BAR
Torque	260 lb ft @ 100 psig (353 NM @ 6.9 BAR)	260 lb ft @ 100 psig (353 NM @ 6.9 BAR)
Weight	34 lbs. (15.4 kg)	45 lbs. (20.4 kg)
Size	6" (152 mm) diameter	6" (152 mm) diameter
Rotation	RH Clockwise LH Counter-Clockwise	RH Clockwise LH Counter-Clockwise
Air Supply	Compressed Air or Natural Gas	Compressed Air or Natural Gas
Lubrication	Grease-Packed for Life	Grease-Packed for Life
Gear Ratio	11.2:1	11.2:1

Grease-packed gears and bearings eliminate oily mess and reduce maintenance. You never have to have or fill a lubricator, as on vane-type starters. The T50 is the starter you install and forget about.

**TDI**  
TECH DEVELOPMENT

**ANYTHING LESS THAN A TURBOTWIN™ IS A COMPROMISE**

6800 Poe Ave. • Dayton, OH 45414  
Tel: 937-898-9600 • Fax: 937-898-8431  
[www.tdi-turbotwin.com](http://www.tdi-turbotwin.com)