

# TURBOSTART™ 56 Series Delivers Reliable Gas Turbine Engine Starts in Your Most Challenging Environments



## Derived from Aerospace. Designed for Industry.

TurboStart 56 Series gas turbine air starters employ TDI's extensive background in the design and manufacture of jet engine simulators. The result is a line of high quality turbine air starters derived from aerospace technology, but designed specifically for the challenges of an industrial gas turbine engine environment.

### Do You Really Need FAA Approval for Your Stationary Gas Turbine Engine Starter?

Aeroderivative starters cost significantly more because they must meet stringent FAA approval specifications for flight.

But do you really need FAA approval for a stationary gas turbine engine starter? Instead of focusing on FAA requirements, TDI engineers went to work designing fewer moving parts to improve reliability, and improving ways to make the starter more resistant to contaminants.

### Open Gas Path Design Allows Contaminants to Pass Right Through

TurboStart's unique open gas path design allows contaminants like moisture, rust, pipe scale, dirty gas/air and microsand to pass-through the motor, minimizing the effects that lead to costly downtime.

### TurboStart Sprag Clutch: Even Torque Distribution

TurboStart's unique Sprag Clutch evenly distributes torque to 22 separate points rather than just three found on most pawl and ratchet clutches. This eliminates the need for sophisticated controls required for precise ramping speeds. More importantly, it allows full-crank starting and a simpler and smoother engagement. The multiple contact points also spread the "wear" on the clutch providing longer life and greater reliability of the starter.



22 contact points

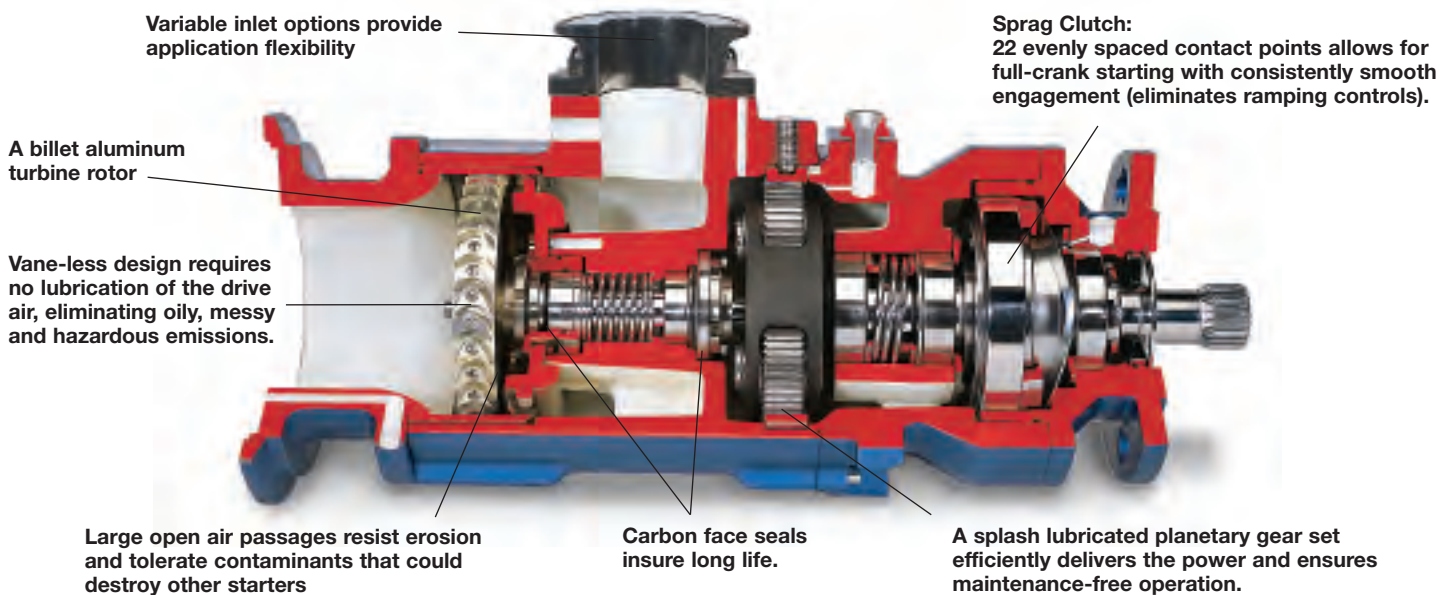


**TDI**  
TECH DEVELOPMENT

ANYTHING LESS THAN A  
TURBOTWIN IS A COMPROMISE.



# TURBOSTART™ 56 Series Gas Turbine Air Starters



All TurboStart 56 Series models provide a durable and reliable solution for starting your stationary gas turbine engines. TurboStart provides aerospace quality for an industrial price. Compare TurboStart features and performance, and you'll find no one provides more value in gas turbine engine starting.

- Proprietary Sprag Clutch
- Single Planetary Gear
- No Pre-Lubricated Drive Air
- Fewer Moving Parts
- Tolerance to Contaminants

## Basic Specifications

**Power:** 90-210 HP

**Weight:** 48 lbs. (21.8 Kg)

**Air/Gas Supply:** Compressed Air or Natural Gas

**Engines:** See Table for matching engines and 56 models

MANUFACTURER	ENGINE (Model)	TDI PART NUMBER	REMARKS	MOUNT	SPLINE PITCH
ALLISON	570 KA 501 KB 501 KC	56B-1021L 5-51680-021 56K-4021L	Inst. on Gearbox Pad	MS3332-2 SAE C AND20002-XII	20/40 SAE C 20/30
DRESSER CLARK	DC-990	56B-2021L		MS3332-2	20/40
DRESSER-RAND	DR-990 DJ-50	56B-2021L 56B-2021L		MS3332-2 MS3332-2	20/40 20/40
GENERAL ELECTRIC	LM500 LM1600 LM2500	56B-1021L 56G-2021L-000-0-75 56G-3021L-000-0-75	Custom Custom	MS3332-2 Special Special	20/40 16/32 16/32
KAWASAKI	PU2500 to PU4000	5-51250-021-6-20 5-51250-021-6-21 5-51250-021-6-22		SAE C	
KONGSBERG	KG2 KG3	5-51255-021-0-02 5-51650-021-2-00	Custom	SAE C SAE C	SAE C
PRATT & WHITNEY	GG3 & GG4  FT4, FT8	56A-1121L-200-3 56A-1121L-206-3 56A-1121L-200-3 56A-1121L-206-3	Air Use Natural Gas Air Use Natural Gas	AND20002-XII AND20002-XII	20/30 20/30
ROLLS ROYCE	AVON SPEY	56A-1121L 56A-1121L-001-0-09	Special w/ Speed P/U	AND20002-XII AND20002-XII	20/30 20/30
SOLAR	SATURN MARKI or MARKII  CENTAUR TAURUS  CENTAUR TAURUS	56S-2007L 56S-2001L T106-60006-MSL-1  T112-60057-CSL-9E T115-60057-CSL-9E T121-60057-CSL-9E  T112-60069-CSL-9E T115-60069-CSL-9E T121-60069-CSL-9E	Std. Pres. Low Pres. Contact Factory  Replaces I-R SS800 & TS700 (Square Body)  Replaces I-R 201 RM (Round Body)	w/ Clutch w/ Clutch w/o Clutch  Special Mount  Special Mount	20/30    Special Coupling  Special Coupling



[www.tdi-turbotwin.com](http://www.tdi-turbotwin.com)

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