



**PROJECT OVERVIEW : TDI Air Starters for Gas Transmission Site**

**Air Starting System - Bringing new life to older engines**

**PROJECT OVERVIEW**

Plant maintenance needed to update an old vane starter.

With minimal assistance from GCS/TDI, a customer at a gas transmission plant installed a TDI121V starting system to replace an old vane starter.

**PRIME MOVER**

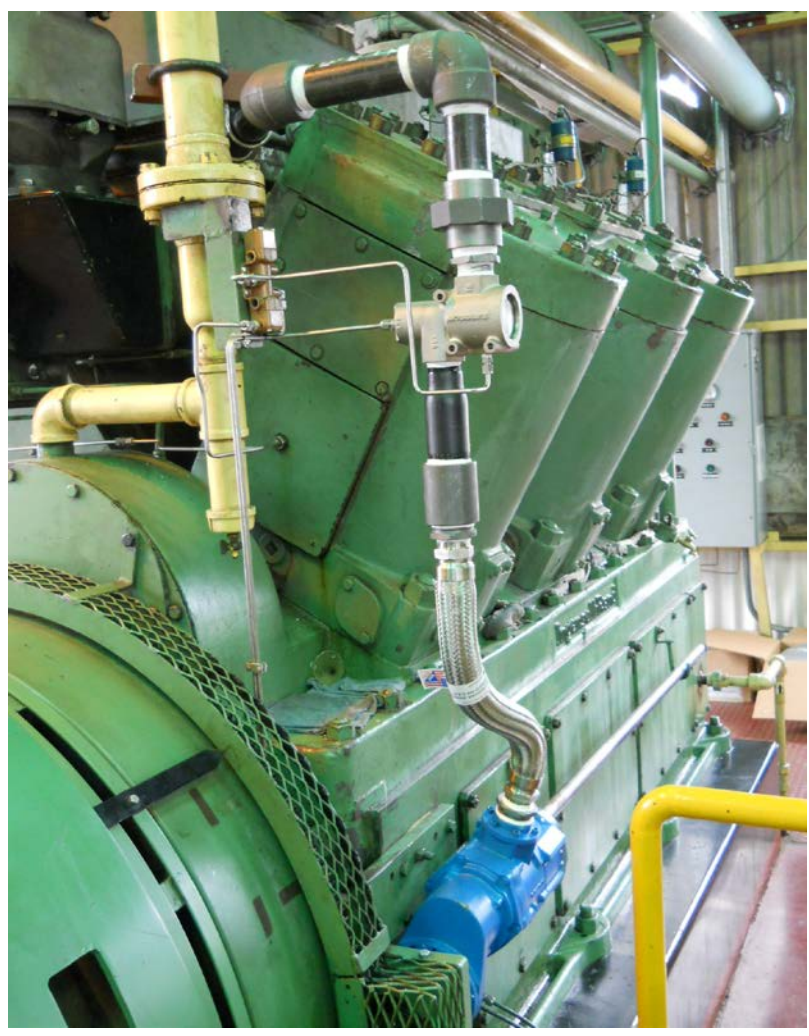
Ingersoll-Rand emergency gas generator Fitted with vane-type IR starter.

**NEW AIR STARTING SYSTEM**

TDI bolt-in T-121V TurboTwin Low Pressure Air Starter with 2" air line.

Y-strainer - Cast Iron Body, #40 Mesh, SST Screen

Air Pressure Regulator



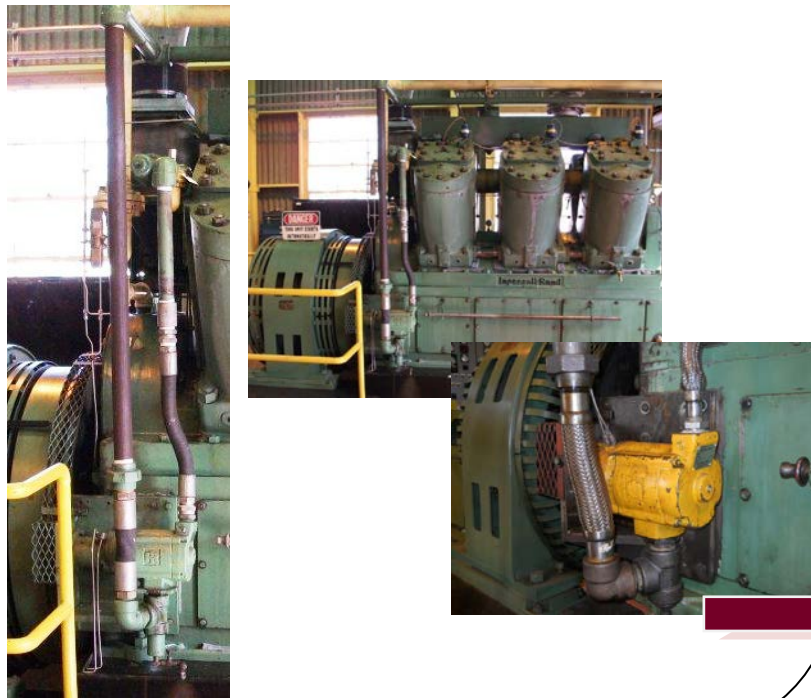
**Low air consumption:** The IR starter required 250 psi and often took over 30 seconds to start; the new T121V requires only 60 psi to achieve maximum starting roll speed and starts engine in less than 10 seconds.

**Lightweight:** Replacing a starter required two men plus a hoist. New aluminum body starter weighs only 54 lbs. and can be installed by one man without a hoist.

**No maintenance required:** The old vane starter required oil lubrication and the exhaust piped outside the building sent untreated oil mist spray into the environment. Oil Misters and exhaust piping removed; starter exhaust now is internal to building with no hazardous exhaust concerns.

**High Reliability:** Water or debris in compressed air lines would cause vane starters to seize. Unique TDI turbine design allows for water and debris to pass through without clogging and does NOT require Oil Mist.

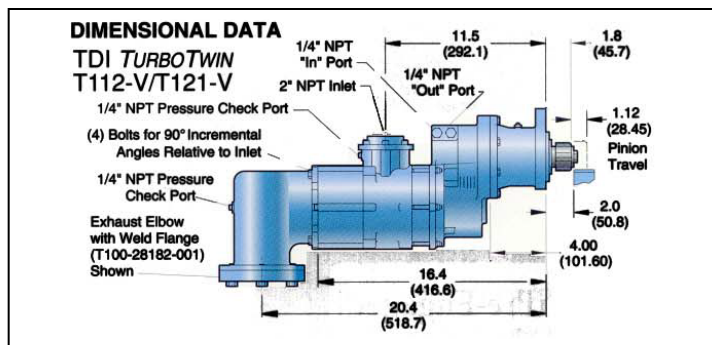
**BEFORE**  
*Vane-type IR starter with Exhaust Line piped outside the building.*



**AFTER**  
*TDI TurboTwin starter installed; no exhaust line required.*



TDI TurboTwin's reliable, sealed (grease-packed) starter motors means there's no messy oil sumps or lubricators to check, change and re-fill. Your site will be cleaner, more safe and free of fugitive starter exhaust emissions.



The T100-V pre-engaged starter provides an offset design and overhung pinion for a more flexible fit. Its envelope provides easy replacement of other brands of turbine-type starters. The T100-V's pre-engagement is better suited to "hard starting" engines or where the operator requires positive control of the start cycle.

GCS offers comprehensive control and monitoring system solutions, from engine and turbine systems integration to turnkey project management. We support a broad range of marine, power generation and industrial projects.

GCS is a member of the MSHS Group. Learn more at [www.govconsys.com](http://www.govconsys.com).

**Southeast Office**  
 3101 SW 3rd Avenue  
 Fort Lauderdale, FL 33315  
 Phone: 954-462-7404  
 Toll Free: 877-659-6328  
 Fax: 954-761-8768

**Gulf Coast Office**  
 2022 Tamvest Court  
 Mandeville, LA 70448  
 Phone: 985-626-8707  
 Toll Free: 888-GCS-GULF  
 Fax: 985-626-8732

**Mid-Atlantic Office**  
 3120 Arizona Avenue  
 Norfolk, VA 23513  
 Phone: 757-852-5808  
 Toll Free: 877-659-6328  
 Fax: 757-852-5809

