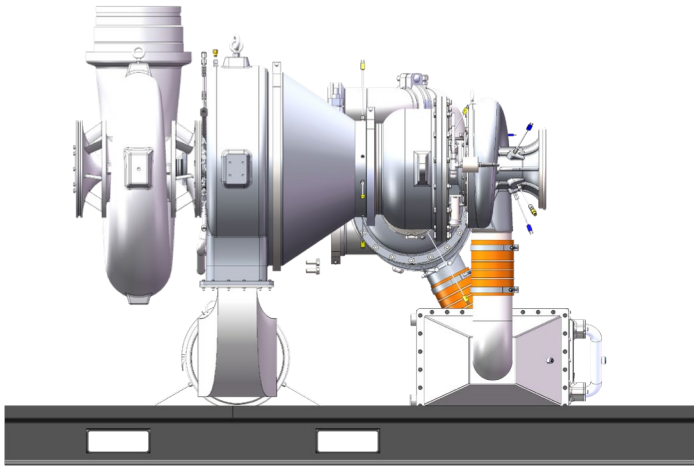
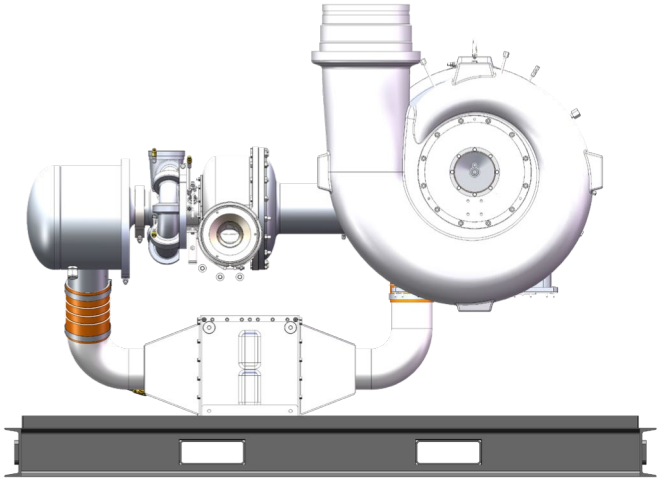
# GT-Blower 300 HP

**FACT SHEET**

## GAS TURBINE TURBO BLOWER:

1. provides power grid independence for wastewater treatment plants
2. can operate with natural gas or biogas
3. decreases operating costs by more than 40% for natural gas and over 80% for biogas compared to old products
4. reduces power consumption
5. reduces environmental footprint
6. lowers greenhouse gas emissions by reducing operating costs for wastewater treatment plants and processes
7. preventing flaring
8. minimal maintenance and downtime





## PRODUCT FEATURES:

| | | | | |
|---|---|---|---|---|
| FUEL-FLEXIBLE COMBUSTOR | REMOTE MONITORING | MODULAR DESIGN | HIGH SHAFT THERMAL EFFICIENCY | INTEGRATED INLET AIR FILTERS |

# GT-BLOWER 300HP - Performance Data

| Ambient Conditions | |
|---|---|
| Blower installation location | Indoor/Outdoor |
| Working fluid | Air |
| Ambient pressure | 14.7 PSIA |
| Elevation | Sea level to 8,000 feet |
| Ambient temperature | -25 to 118 °F |

| Design Conditions | |
|---|---|
| Inlet temperature | 68 °F |
| Relative humidity | 65% |
| Pressure range | 4 - 15 PSIG |
| Flow rate per blower range | 2,300 – 9,000 SCFM |

## Turbo Blower Supplied Performance

| | |
|---|---|
| Rated Discharge Pressure | 7/10.7/14 PSIG |
| **Shaft Power @ design condition per blower** | 230 kW/308 BHP |
| Maximum Air Flow @ duty discharge pressure/blower | 9,000/6,400/4,700 SCFM |
| Minimum Air Flow @ duty discharge pressure/blower | 4,200/2,300/2,300SCFM |
| Turndown from maximum flow to minimum flow | >50 % |
| **Discharge temperature @ design condition** | 150/190/220 °F |
| **Maximum discharge pressure** | 17 PSIG |

**Note:** approximate data - subject to change

## Gas Turbine Performance

| | |
|---|---|
| Natural gas flow @ design condition per blower | 35 SCFM |
| Natural gas heat input @ design condition per blower (LHV) | 1.9 MBtu/hr |
| Digester gas flow @ design condition per blower | 59 SCFM |
| Digester gas heat input @ design condition per blower (LHV) | 1.9 MBtu/hr |
| Fuel inlet pressure | 134 PSIG |

**Note:** approximate data – subject to change
**LHV:** lower heating value. Natural Gas LHV = 47.5 MJ/kg. Digester Gas (CH4 - 62%vol) LHV = 18.9 MJ/kg.

## Notes

| | |
|---|---|
| Maximum noise level @ 3 feet | 80 dBA |
| Dimensions per blower (length/width/height) | 125/80/90 inches |
| Weight per blower | 7,500 lbs |
| Gas turbine blower entry type | louvered or flanged |

**Note:** approximate data - subject to change.

# Specifications

| Operating Conditions | |
|---|---|
| Relative humidity | 0% - 98%[1] |
| Operating temperature | -22 °F - 113 °F |
| Atmospheric pressure range | 12.3 – 14.8 PSIA |
| Blower pressures | 7 PSIG |
| | 10.7 PSIG |
| | 14 PSIG |

1 Non-condensing
**Note:** approximate data - subject to change

| Fuels | |
|---|---|
| Fuel type | Natural gas |
| | Treated biogas |
| Maximum allowed $H_2S$ content | 5000 ppmv[1] |
| Maximum allowed siloxane | 5 ppbv |

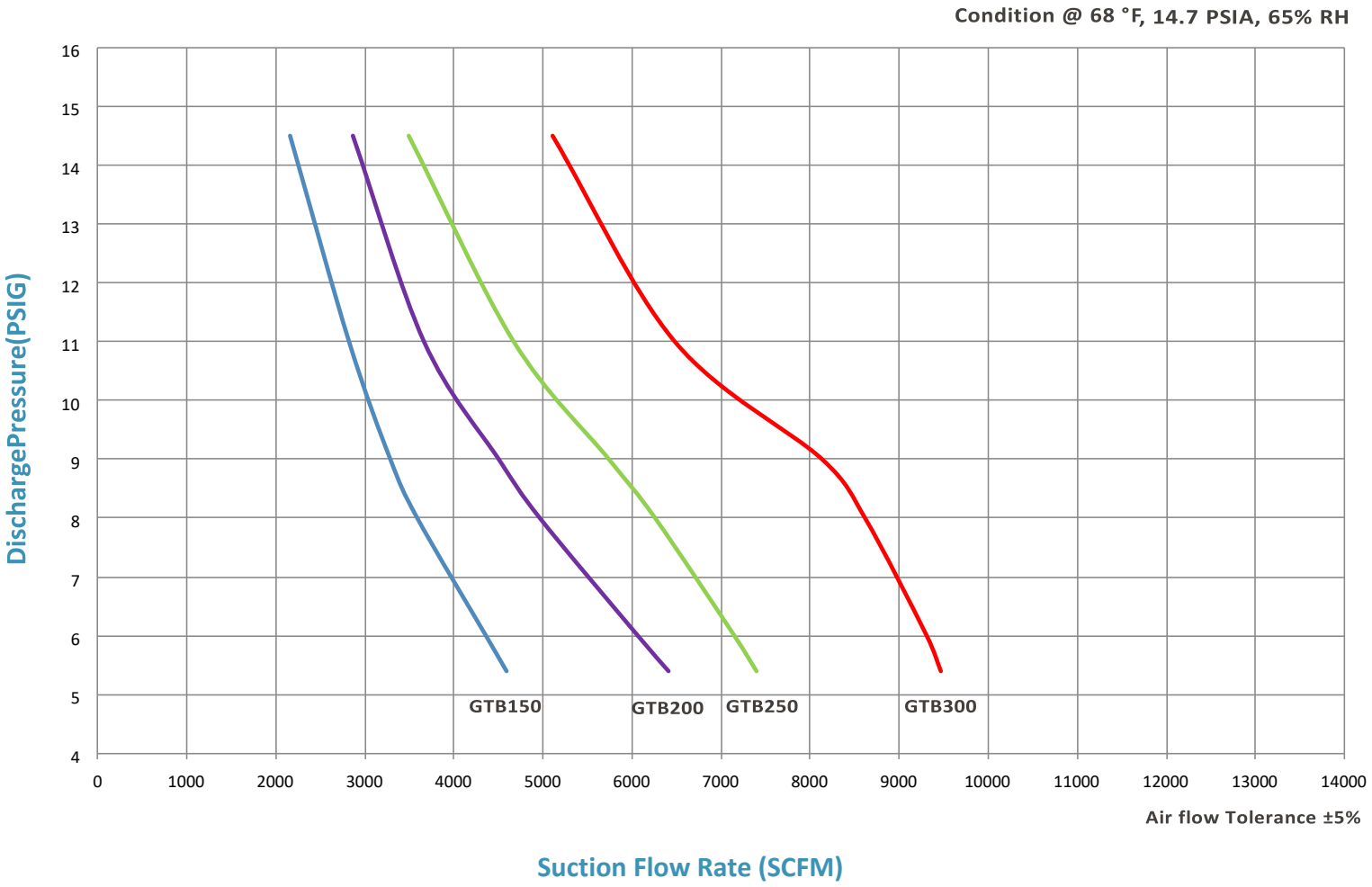
1 Dry gas basis

| Exhaust Characteristics | |
|---|---|
| NOx emission at 15% O2 at full power | <1.7 ppmv for natural gas & treated biogas[1] |
| CO emission at 15% O2 at full power | <4.1 ppmv for natural gas & treated biogas[1] |
| Exhaust emissions standards | BACT/LAER & CARB DG, California |
| Exhaust gas flow at full power | 1742 SCFM |
| Exhaust gas temperature at full power | 400 °F |
| Heat rejection from inter-cooler | 120 kW[2] |
| Oil cooler & gas booster combined heat rejection | 20 kW[2] |
| Heat rejection from exhaust gas | 200 kW[2] |

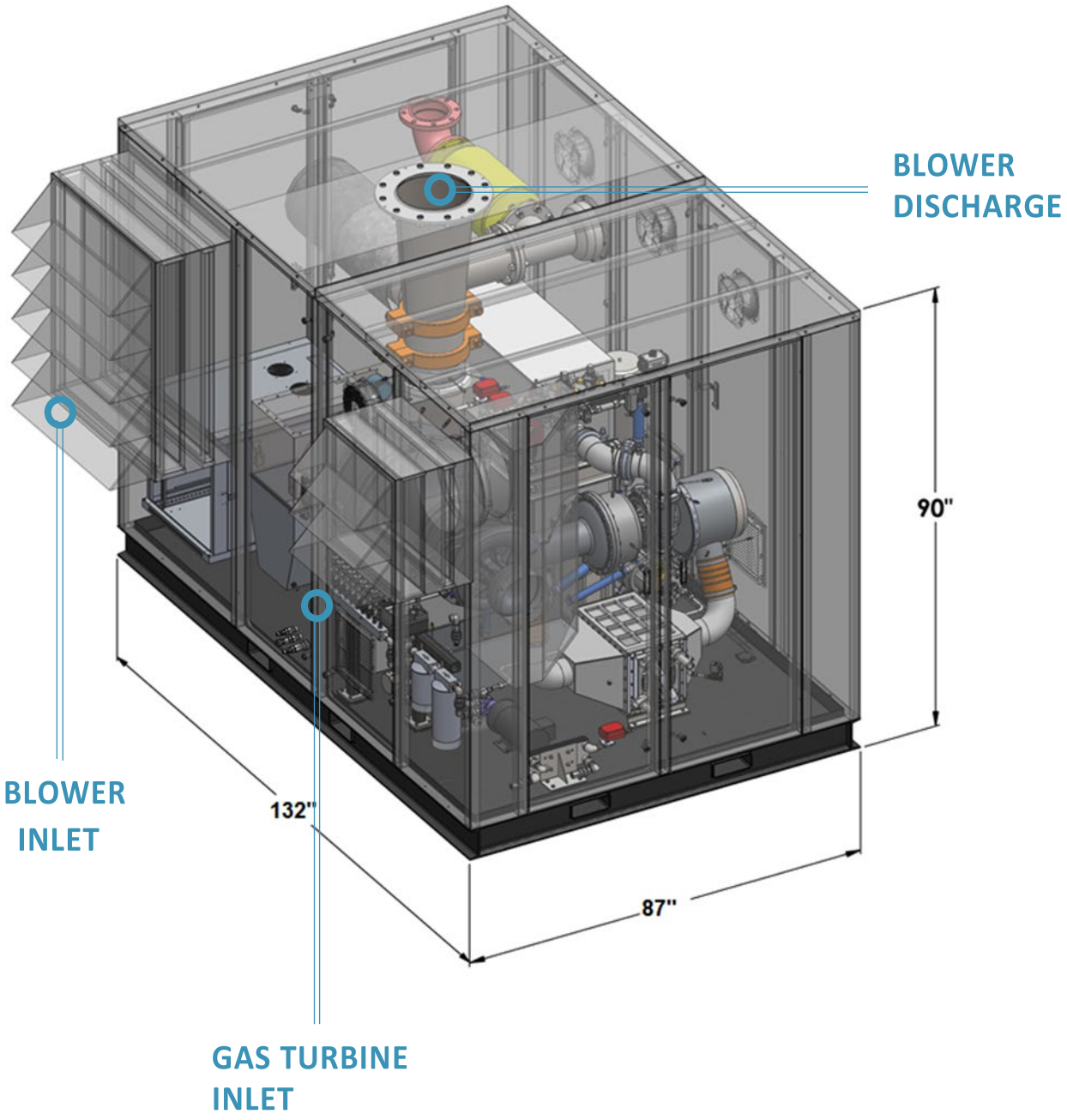
1 Natural gas and pre-treated biogas
2 When combined Heat and Power Recovery System is included
**Note:** approximate data - subject to change

**ELECTRIC POWER GRID INDEPENDENCE**
**SIGNIFICANT COST SAVINGS**
**PREVENTS FLARING**

# Performance Curves



# GAS TURBINE BLOWER

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