



MAPNA GROUP

TUGA

MAPNA Turbine Engineering and Manufacturing Company

MGT-30mobile Power Plant

(2-trailer)



MGT-30mobile;

A Fast Power Solution by MAPNA Group

Whether it is fast power provision for the grid or an interim power generation unit when electrical energy is needed on short notice in remote areas or areas struck by natural disasters, The MGT-30mobile with up to 25 MW of moveable electrical power provides the best and fastest possible solution available. Based on the proven MGT-30(2) gas turbine platform, MGT-30mobile is a self-contained, trailer-mounted power plant assembled on two trailers. The unit is easily transportable by land, sea and air to any remote area, providing a grid connected or standalone electrical power generation set in approximately 1 week (after site preparation).

Key Features

High Power Density

- Space-conscious design with about 38.3*2.6m net power block foot print area to locate two trailers and auxiliaries

Fuel Flexibility

- Run and switch between gas and diesel oil fuels

Scalable, Reliable Power

- Able to add 25 MW blocks of dependable power as demand increases

Distributed Power

- Localized power supply, eliminating the need for additional transmission and distribution infrastructures

Easy and Quick Installation

- Optimal design to reduce on-site flooring and civil work, pre-fabricated piping and cabling

Easy Transport to Site and Relocation

- Swift dispatch and deployment at the required site

Quick Lead Time, Fast start & Flexible Operation

- Fast mobile power on demand
- Reaching full power within 25 minutes

Turnkey Design

- Self-contained mobile power solution on board



Applications

Limited or No Access to the Power Distribution Grid

- Remote, isolated areas with lack of power distribution networks and/or mobile facilities

Rapid Electricity Demand Growth

- Sharp increase in electricity demand during seasonal or peak periods or subsequent to large-scale construction or industrial projects

Emergencies and Natural Disasters

- Urgent power needs for areas struck by natural disasters or other unpredictable incidents

Lengthy Construction of Power Generation Infrastructures

- Long construction processes with a number of unpredictable delays putting a huge strain on the power grid

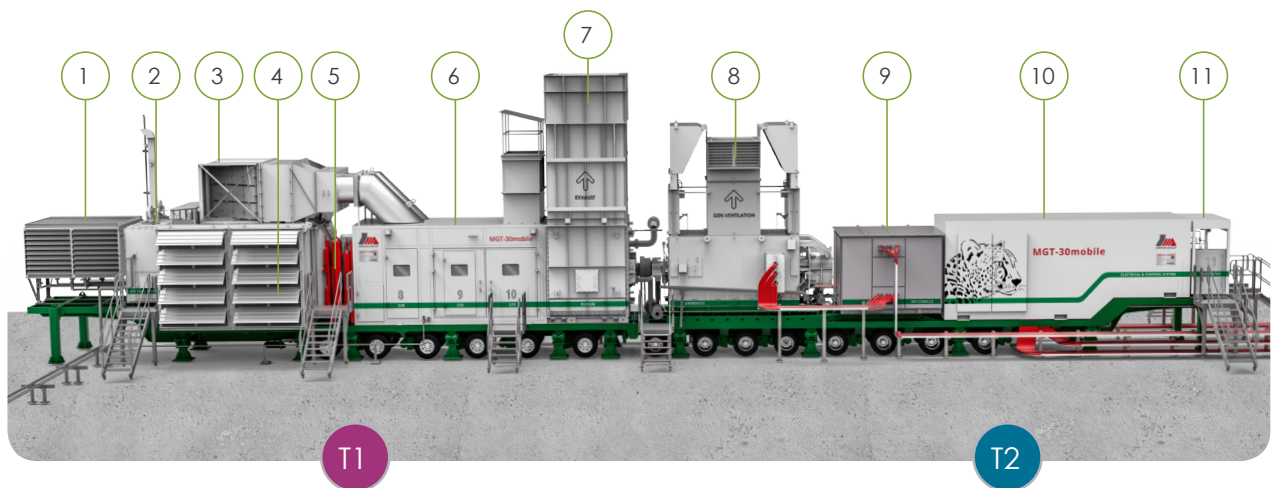
Backup Power Supply

- During overhauls, maintenance operations or outages at power plants or other applications



General Arrangement

The MGT-30mobile power plant is mounted on a mobile, 2-trailer platform (T1 & T2), as shown below:



MGT-30mobile Power Plant General Arrangement

T1 Gas Turbine & Auxiliaries Trailer

Transportation Weight (tonne)	71
Transportation Dimensions (m)	19.3×2.6×4.3

- 1 Turbine Lube Oil Cooler
- 2 GTE Fuel System
- 3 GT Enclosure Ventilation System
- 4 Air Intake
- 5 Fire Fighting System
- 6 GT and GT Enclosure
- 7 Exhaust System

T2 Generator & Electrical Trailer

Transportation Weight (tonne)	89
Transportation Dimensions (m)	19×2.6×4.3

- 8 Generator and Air Filter System
- 9 MV Cubicle
- 10 Electrical & Control Container
- 11 Generator Lube Oil System



Specifications

Parameters	Unit	Fuel Gas	Fuel Oil
Gross Power Output*	MW	25	23.8
Gross Efficiency*	%	35.9	35.4
Shaft Speed	rpm	3000	3000
Exhaust Gas Temperature	°C	472	476
Exhaust Mass Flow Rate	kg/sec	89	87.3
Frequency	HZ	50	50
Generator Rated Voltage	kV	11	11

* Standard ISO Conditions

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