

Introduction to Leading Decarbonizing Technologies and Infrastructure



YANMAR CORPORATE PROFILE

Chisinau / Moldova

YANMAR TURKEY
YANMAR
10th of Nov, 2023



Company Overview



President,
Takehito Yamaoka



Founder,
Magokichi Yamaoka

Trade name	Yanmar Holdings Co., Ltd
Head office	1-32, Chayamachi, Kita-ku, Osaka, Japan YANMAR FLYING-Y BUILDING
Founded	March 1912 Founded as YAMAOKA HATSUDOKI KOSAKUSHO
Yearly Turnover	Approx 10 billion USD
Group Companies	Over 110
Founder	Magokichi Yamaoka
President	Takehito Yamaoka
Employees	20,958 (As of March 31, 2023)

List of Business Areas

Agriculture



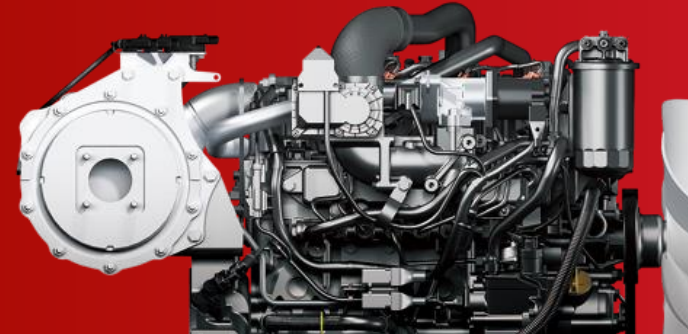
Marine



Construction



Industrial Engines



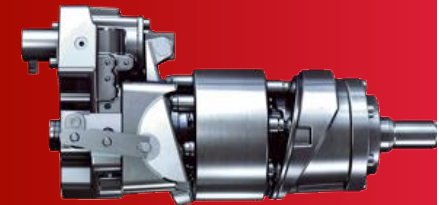
Marine Commercial Engines



Energy Systems



Component



Yanmar Turkey Makine A.Ş. (YTM)

A subsidiary of Yanmar Europe BV with 210 employees, founded in 2017.

- EPC hub for all Yanmar Energy Global Projects under the department of Energy Systems.
- Global trading and procurement activities for global Yanmar factories.
- Partnership with different reliable suppliers in the energy sector.
- Quality control management for all suppliers regularly.

⇒ Key factors for successful implementation of a wide variety of power generation projects.

360° Advantages boasts a robust track record of successful project management, spanning from conceptualization to project completion:

- In-house feasibility studies,
- engineering design,
- Supplier assessment & equipment procurement,
- Project execution & construction management,
- installation or supervision of installation,
- commissioning & start-up,
- Aftersales support.

HQ
Ater Tower, Konak, İZMİR



Energy Systems Office
Gümüş Plaza, Bayraklı, İZMİR

İstanbul Office
Metropol İstanbul, Ataşehir, İSTANBUL



Aftersales Service Center
Torbalı, İZMİR



Tractor Factory
Torbalı, İZMİR



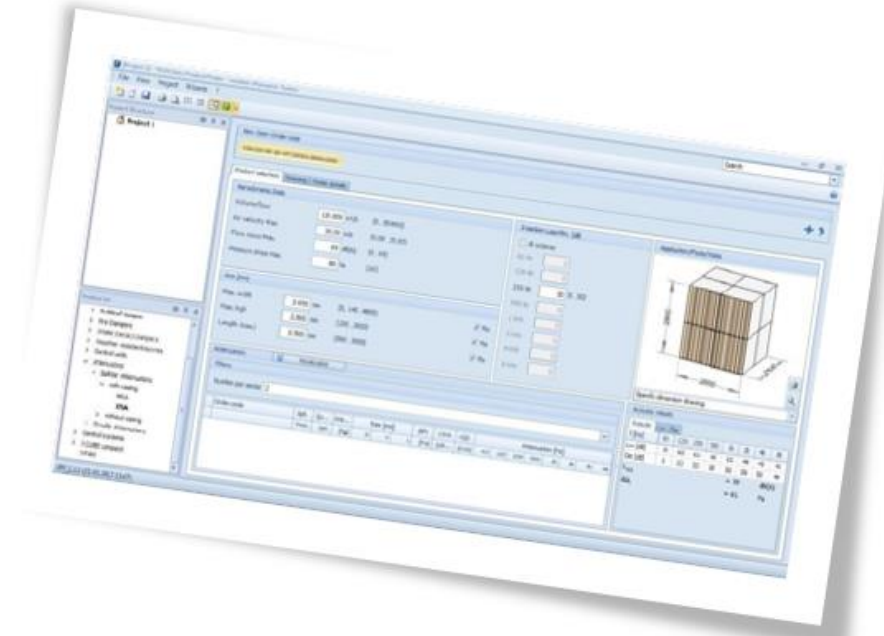
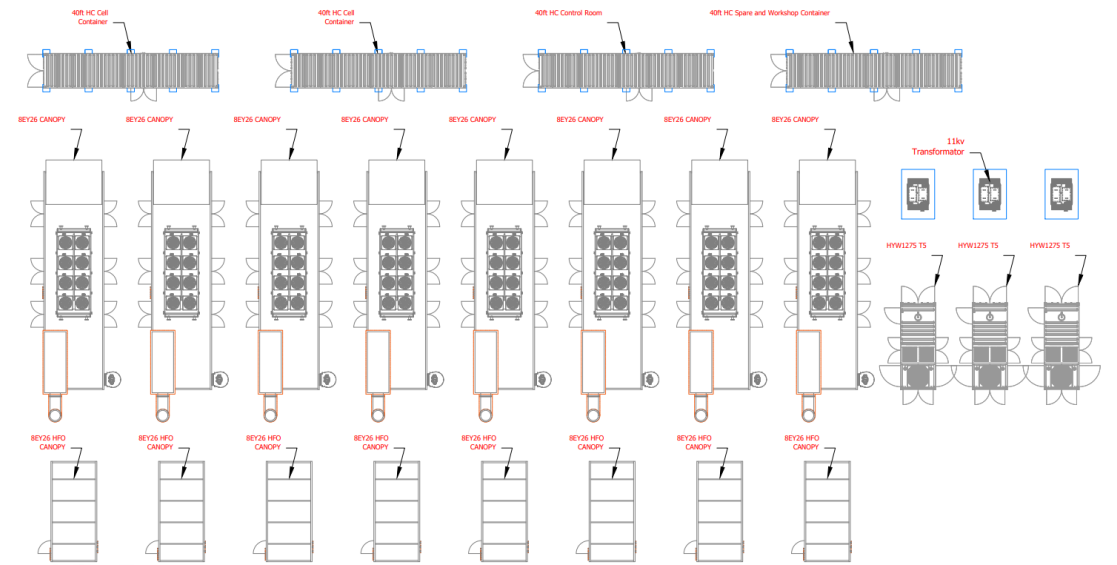
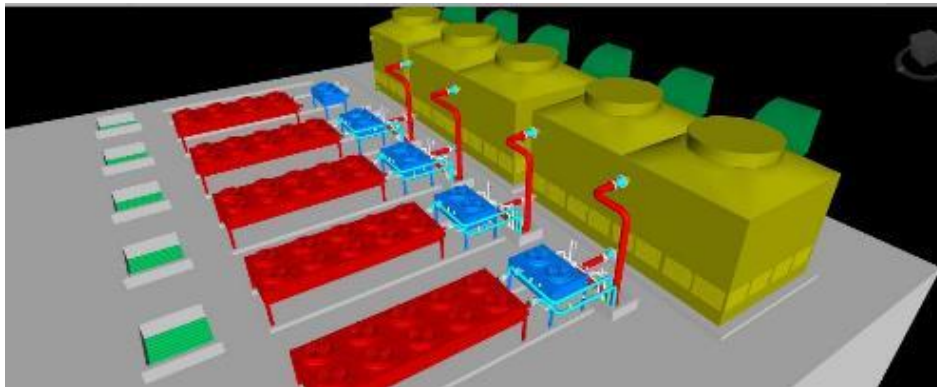
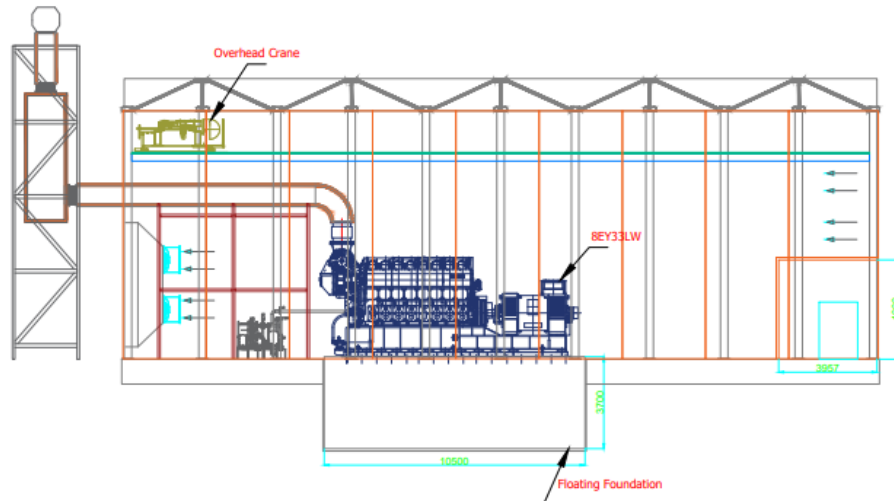
POWER EPC SOLUTIONS

E-Engineering **P**-Procurement **C**-Construction



Engineering

- Drawings with softwares
- Design Works
- Calculations
- Proper equipment selection
- Cooperation with design institutes



Procurement

- Mechanical Items
 - Containers, power houses
 - Radiators, Cooling Towers
 - Chillers and air handling units
 - Boilers and heat exchangers
 - Fuel tanks and automation
 - Silencers and isolators



- Electrical Items
 - Synchronization Panels
 - Transfer and distribution boards
 - Scada systems
 - MV Cells
 - Transformers
 - Cables
 - Busbars
 - Load Banks



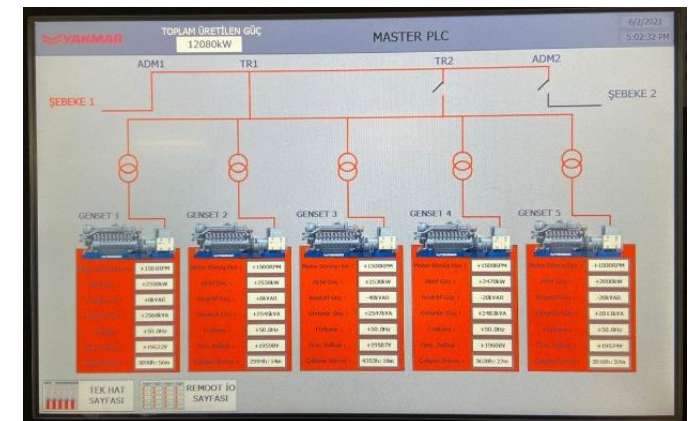
YFS

Construction

- Mechanical Installations



- Electrical Installations

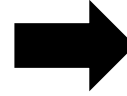


Yanmar – Global EPC Project Implementation Strategy

As one of the companies with the widest product network in the sector, with its new strategy, Yanmar will present its HFO/Dual Fuel, CHP and renewables options to the customer with a high value-added, turnkey scope, according to the project requirements in any part of the world.



FROM
Product Supplier



TO
Value-added turnkey project supplier



- Total Plant Design
- Engineering
- Procurement
- Site Works
- Project Management
- Plant Commissioning
- After Sales

Yanmar Turkey has been assigned as the EPC contractor for all Yanmar Energy Global Projects



PROJECT MANAGEMENT TEAM

OKAN KILINÇ MECHANICAL AND DESIGN PROJECT EXECUTIVE



Mechanical Engineer
Joined – 1/2021

Covering Mechanical scope in diesel, gas, CHP and EPC projects
Design-application-Engineering-layout-autocad studies, manufacture and installation follow up,
Fuel system, Cooling system, Exhaust lines, Ventilation and Aspiration lines design,
Industrial Noise Control and Sound Attenuation (Certified) Design & Applications,
Design of Acoustic Enclosures, Sound Attenuators, Acoustic Louvers,
Exhaust Silencers and HVAC Duct Attenuations design and project Management

Experience - 12 years

Senior Mechanical Executive – Técnicas Reunidas / ARAMCO Gas Compression Project – 2 Years
Senior Mechanical Design Engineer – Caterpillar Dealer - Borusan Power Systems – 5 Years
Mechanical Design Engineer – Aksa Power Generation – 4 years

Completed Projects: Adana, Yozgat, Eskişehir, Göztepe and Okmeydanı City Hospitals,
Ankara Esenboğa and Diyarbakır Airports, Akbank, Garanti and Is Bank Datacenters,
Emaar Square, Rönesans Kucukyali Hilltown, Maltepe Piazza, Rönesans Izmir Optimum Shopping Malls,
Marmaray Railway, Euro Asia Tunnel, Yassıada Island Tunnels,
TCO Castro Oil&Gas Project(Kazakhstan), Sarens(Kazakhstan), Socar (Azerbaijan), Saudi Aramco Haradh and Hawiah
Gas Compression Project (Saudi Arabia)

BAHATTIN BAKIR SITE ELECTRICAL PROJECT EXECUTIVE



Electrical Electronics Engineer
Joined – 5/2018

Electrical projects scope studies for Diesel Genset, CHP and EPC projects
Project layout design and application engineering calculation
Technical support for new sales employees
Offer requests to suppliers, Periodic visits to important or new suppliers
Commission (FAT & SAT) , Managing suppliers on the site according to Project schedule

Experience - 12 years

Ex: Alimar (Packager & MHI Turkey Dealer) Project Manager – Major Diesel Genset Projects in Turkey and Overseas
Completed Projects: Urfa City Hospital 6x1500kVA, Sancaktepe Hospital 4x1375kVA,
Mall of Istanbul 1500, 2x1600kVA, 17x2000kVA, 3x2235kVA, Markantaly Shopping Mall 6x2000kVA, Torium Mall
8x2000kVA, Hilton Trabzon 2x1100kVA, Giresun Airport 3x1760kVA, Istanbul Courthouse 3x2250kVA diesel gensets

FIKRET KAZANAN SITE MECHANICAL PROJECT EXECUTIVE



Mechanical Engineer
Joined – 4/2019

Large CHP Project management studies (natural gas & biogas & HFO)
Cost table, scope contents preparations
Arrange and Follow equipments shipments,
Arranging commission, FAT and acceptance procedures,
Schedule & organise project site, suppliers and customer technical departments

Experience - 14 years

- SONMEZ Electric Power Plant – Operation Manager / 5 x Wartsilla 18V50DF, 20V34SG – 70MWel – 6 Years
- AGAOLU CHP Power Plant – Operation Manager / 3 x MWM TCG2032 - 12.9MWel – 4 Years
- Caterpillar Subcontractor - Project Manager – 3 Years

Completed Projects: Algeria Taylal Textile 34.4MW CHP, Konya Hospital 6MWel CHP, Global Inv. Holding Biomass, Adana
Hotel Trigen Plant, Adana City Hospital Trigen Plant, Istanbul Shopping Mall, Van Shopping Mall Trigenation Plants,

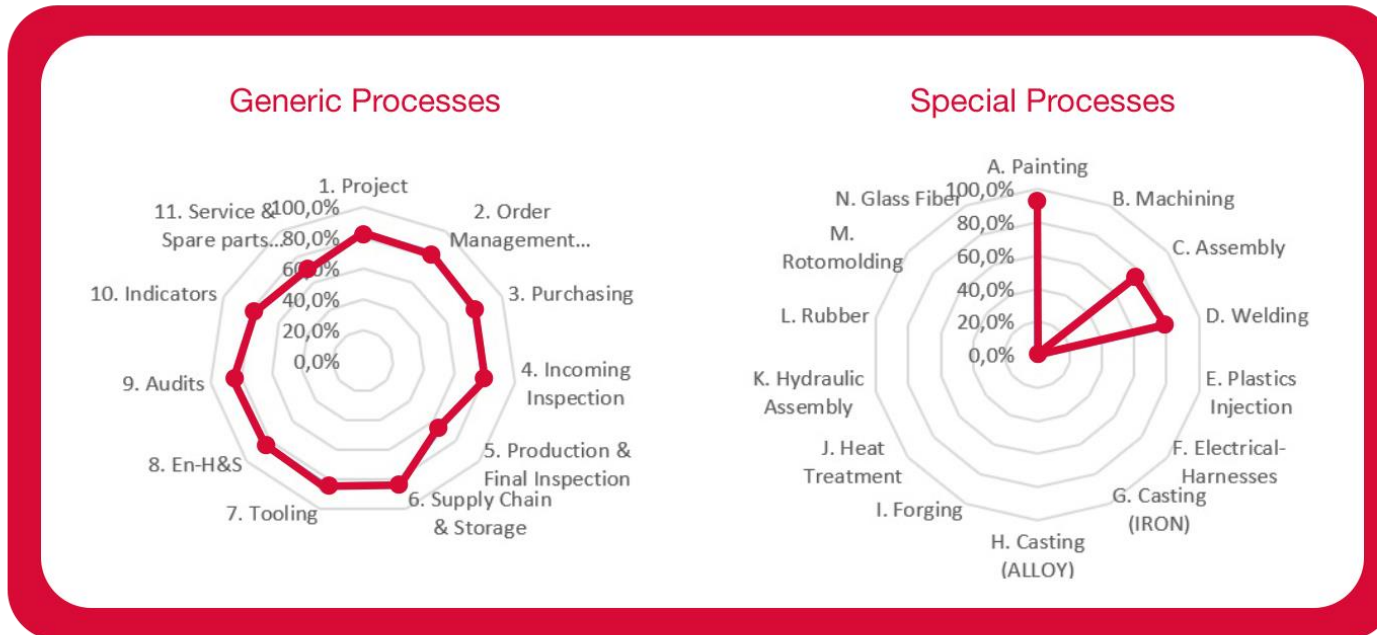


QUALITY CONTROL&SOURCING TEAM



QUALITY CONTROL & SUPPLIER MANAGEMENT

Strict audits are performed by the YTM Supplier Development Team on both generic and special process basis, which is one of the key steps of supplier development process.



YANMAR		Supplier Assessment Report		
Page 1/2				
Supplier:	Country:	Site Location:	Commodity:	Supplier code:
Company Activities (Market / Strategy / Products...)				
Customers (Numbers / TOP / % dependency)				
Quality & EHS Registration:				
ISO 9001:2015	Expiry date:	Registration N°:		
ISO 14001:2015	Expiry date:	Registration N°:		
Others: IATF 16949:2016	Expiry date:	Registration N°:		
Others: ISO 3834-2	Expiry date:	Registration N°:		
Reason for assessment:	Results of previous assessments:	Assessment participants		
<input checked="" type="checkbox"/> New Assessment Generic & Special Processes	Result: [Redacted] Date:	Auditors (Name, function):	Auditees (Name, function):	
<input type="checkbox"/> Follow up or Re Assessment Action plan PDCA / Special processes				
Assessment evaluation		Audit Date		
Number of CR	0	RANKING		
Number of CAR	0	C 0%		
Process Indicator Generic processes	0,00%	Report Number	2023-XX-00_rev.A	
Rules / Criteria (PI: Performance Indicator)	Rank	Status		
PI ≥ 85% and No CAR	A	Supplier assessment approval. No Go for Supplier Nomination		
75 % ≥ PI ≤ 85 % or CAR ≤ 2 or PI ≥ 85% and 1 or 2 CAR	B	Improvement action plan requested. Supplier Nomination, under accepted deviation.		
PI < 75 % or ≥ 3 CAR	C	Immediate Corrective Actions required. No Go for Pre-selection		
Signature/name Auditor		Signature/name Auditee (Supplier)		
YANMAR SD Manager or Quality Manager (mandatory)				



Technologies



Conventional fuels (Diesel&Nat. Gas)



HFO/Dual Fuel Power Plants



Wind



Geothermal



Carbon Capture & Utilization



Solar



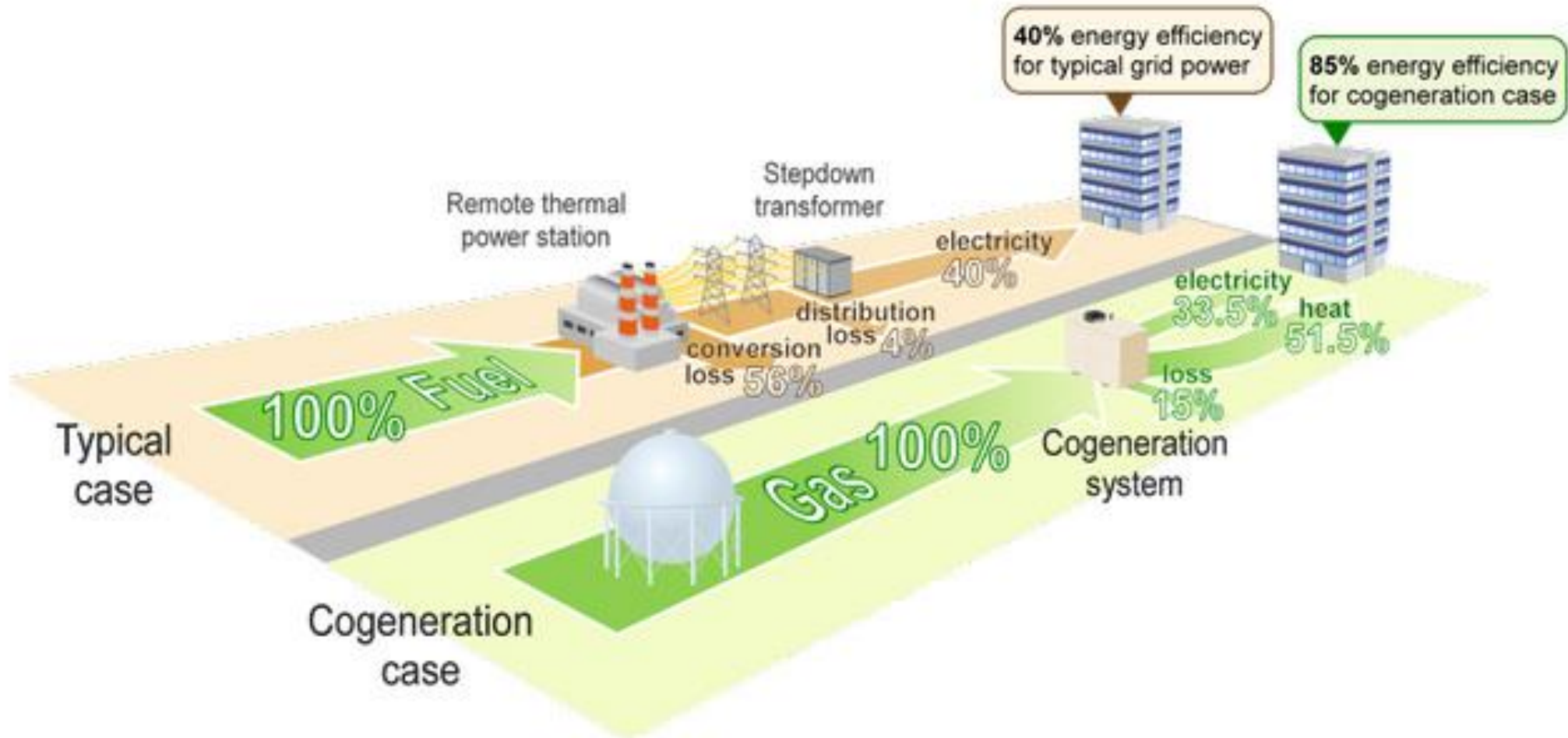
Biogas



Landfill gas



Combined Heat & Power (CHP) System vs. Traditional Generation

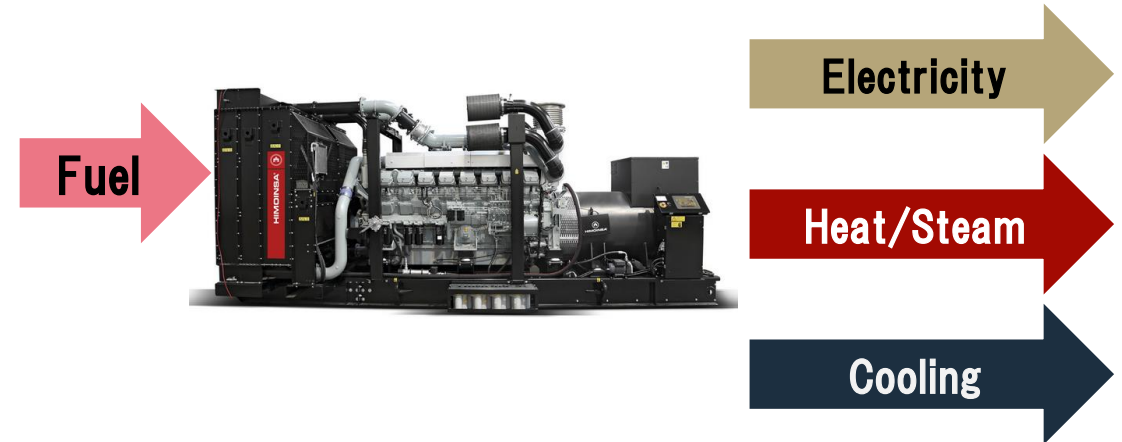


Yanmar's Cogeneration (CHP) and Trigeneration system

Cogeneration System



Trigeneration System

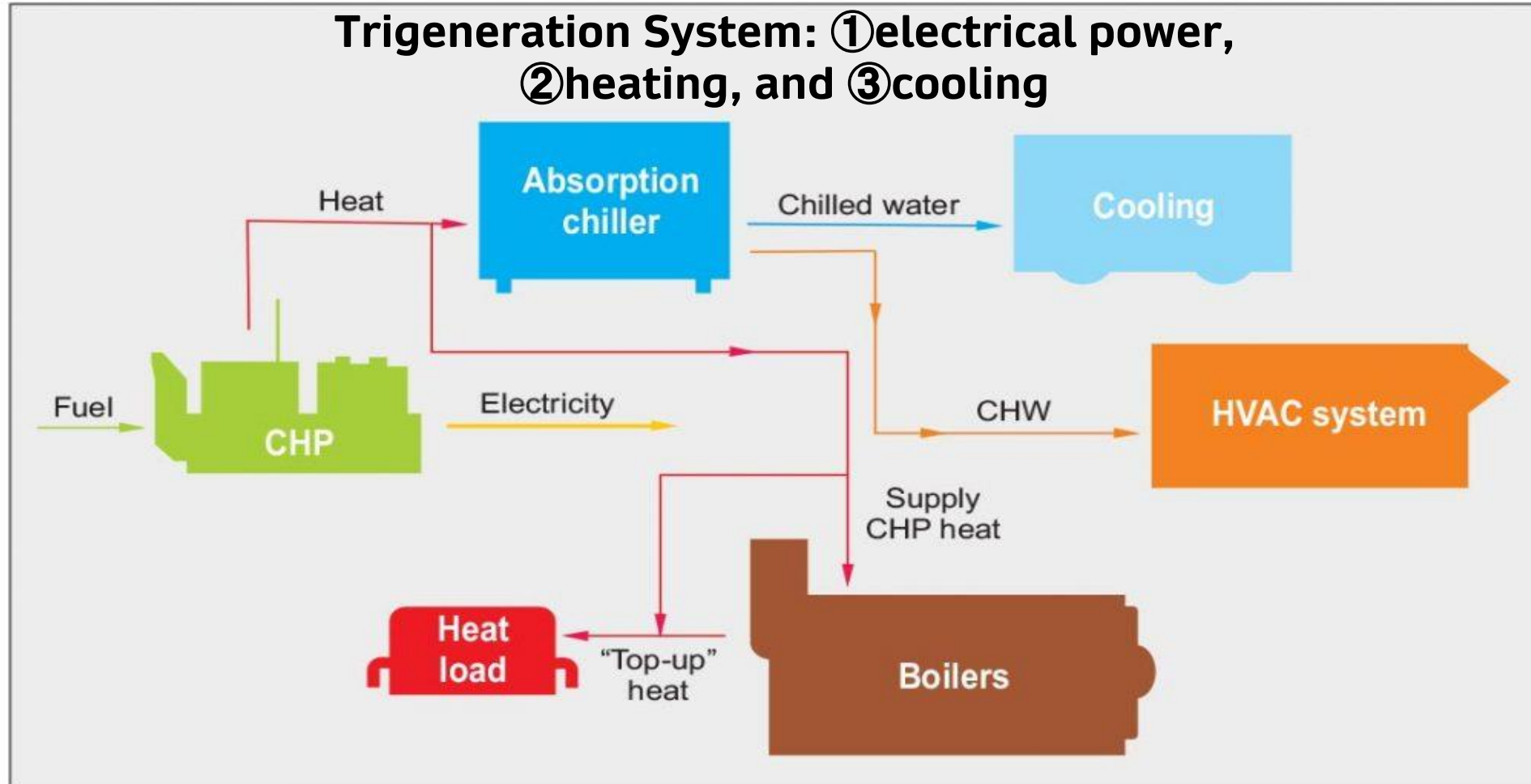


Cogeneration (CHP) is best suited for facilities with the high demand for power & thermal energy.
Trigeneration is best suited for facilities with the high demand of power, heat & cooling.

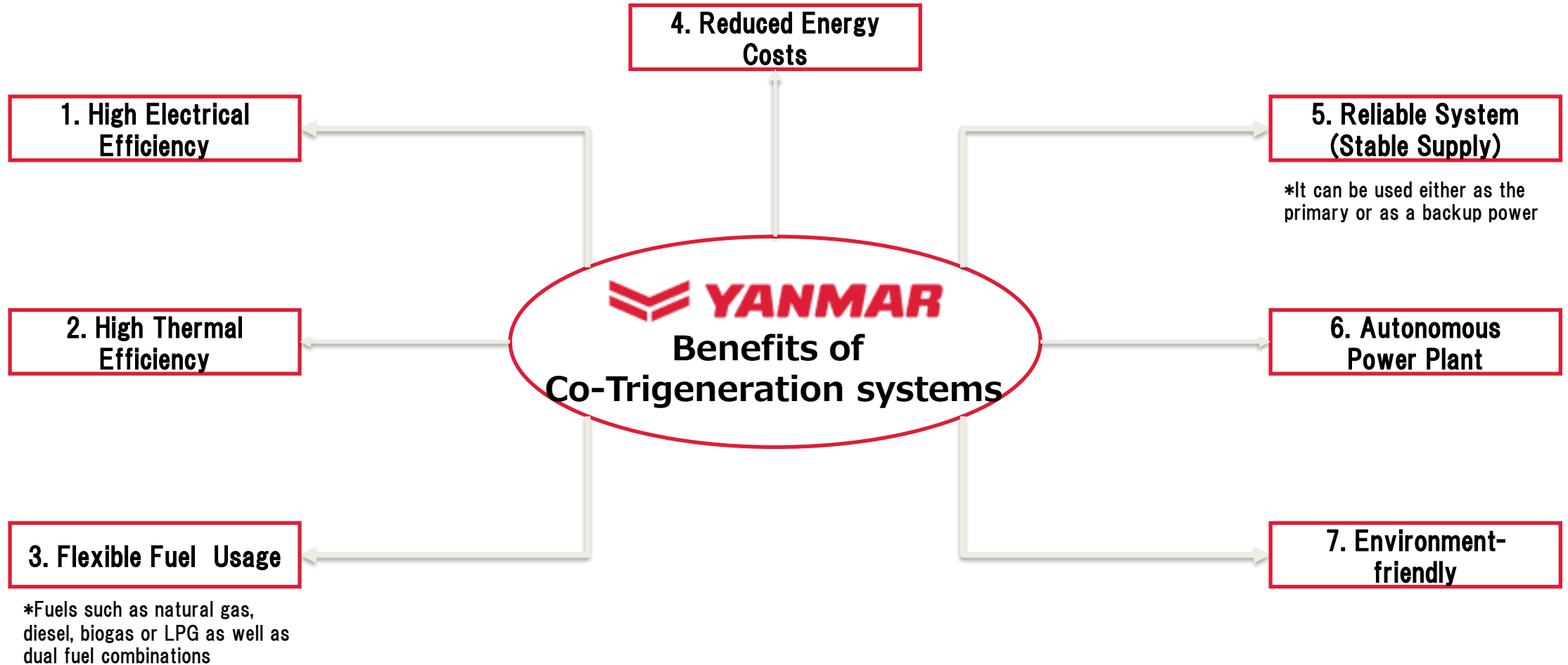


Functionality of a trigeneration system

Trigeneration is the production of combined cooling, heat, and power from a single generator or process. The trigen system produces electricity and useful heat which is utilized for hot water, space heating or steam production.



Benefits of Cogeneration / Trigeneration systems



Yanmar's Combined Heat & Power (CHP) systems fits everywhere



Schools and universities



Food



Industrial companies



Sewage plants



Hospitals



Greenhouses



Hotels



Landfills



Residential buildings



Swimming pools



Heating grids



Biogas plants





Basaksehir Cam ve Sakura City Hospital

Healthcare

Istanbul - Turkey

Challenge:

One of the biggest hospitals in Europe (2682 beds) was exploring how to increase their energy efficiency and decrease their energy bills while meeting a huge, year-round demand of electricity, cooling and heating - with no room for interruptions.

With excessively high energy bills and an elevated carbon footprint, other energy solutions needed to be investigated.

Solution:

- ✓ 12 MWe trigeneration system with gas gensets
- ✓ 62.5 MVA emergency power with diesel gensets
- ✓ UPS system
- ✓ Control synchronization system

Istanbul City Hospital - Reference EPC Project



Biogas technologies

- 2019
- 6 MWe Biogas Plant Construction



Investor Company : 
Location : İzmir / TÜRKİYE
Scope :

Turnkey Plant Construction
Basic and Detailed Project Management
Equipment Supply,
Commissioning and Start-up.



Biogas technologies

- 2021
- 1.250 tons/day Waste Management and
- 7,8 MWe Biogas Plant Construction



Investor Company :  BIOSUN

Location : İzmir / TURKIYE

Scope :

Turnkey Plant Construction

Basic and Detailed Project Management

Equipment Supply,

Commissioning and Start-up.



Waste Water Technologies

Project: KKTC-Güzelyurt / Morphou Wastewater Treatment Plant
Capacity Enhancement Project, funded by the European Union and managed by the United Nations Development Program (UNDP).
Scope: 4 x CP Micro-cogeneration Systems - Biogas Units (CP25WE-TF)

- * Electricity supply and hot water from biogas
- * Carbon foot print reduction
- * High efficiency even with varying amounts of biogas
- * Detailed engineering with design works
- * Test & Commissioning on site
- * Working scenarios according to available biogas





Thank you