

LV-MV Power Infrastructure • Transformer Substation Erection • ATEX/Exproof Electrical Installation • Turnkey Electrical Contracting

At the Heart of Industry, Engineering You Can Rely On.

Since 2000, we have delivered over 500 projects across Turkey's heavy industry, port, petrochemical, energy and public sectors — on time, to specification, and with zero-deviation discipline.

25+

Years of Field
Experience

500+

Completed
Projects

68

Distinguished
Reference Clients

IEC-IEEE

International
Standard Compliance

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— WHO WE ARE

Engineering Discipline, Field-Proven Reliability.

We are an electrical engineering and contracting firm that has delivered **over 500 industrial electrical projects** across Turkey's heavy industry, port, petrochemical, and manufacturing sectors — on budget, on schedule, and fully compliant with technical specifications.

Our design-engineering-and-field-execution model means project-specific solutions, zero-deviation commitment, and an unwavering focus on protecting client assets. **Operational continuity, energy efficiency, and investment security** sit at the core of every engagement.

Headquartered in Dilovası, Kocaeli; our ETAP/EPLAN-based engineering infrastructure enables us to manage the full project lifecycle — from design to commissioning, from maintenance to HV operating authority — under a single point of responsibility.

"Our hands-on experience in heavy industry, petrochemical, and port facilities has given us something beyond technical knowledge: the ability to anticipate the real operational constraints of industrial plants. On every project, we treat our client's production continuity, asset integrity, and long-term energy efficiency as our own priorities."

Hasan TAŞ

General Manager — Electrical Engineer, AYÇE Industrial

Field-Driven Engineering

Technical expertise forged through direct field experience in refineries, steel plants, and port facilities.

IEC / IEEE / TS EN Compliance

All projects are designed, executed, and documented in full conformity with international standards.

ETAP & EPLAN Infrastructure

Digital engineering: short-circuit, load flow, and harmonic analyses computed with dedicated software tools.

Turnkey Contracting

From design through commissioning — single point of contact, full accountability model.

COMPANY NAME

AYÇE Endüstriyel Makina İnşaat Elektrik Taahhüt San. ve Tic. Ltd. Şti.

BUSINESS ACTIVITIES

Electrical Contracting · Engineering & Project Consultancy · MV/LV Facility Erection & Operation

ESTABLISHED

2000 — Limited Liability Company, Kocaeli, Turkey

HEADQUARTERS

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— OUR SERVICE PORTFOLIO

Turnkey Industrial Electrical Solutions

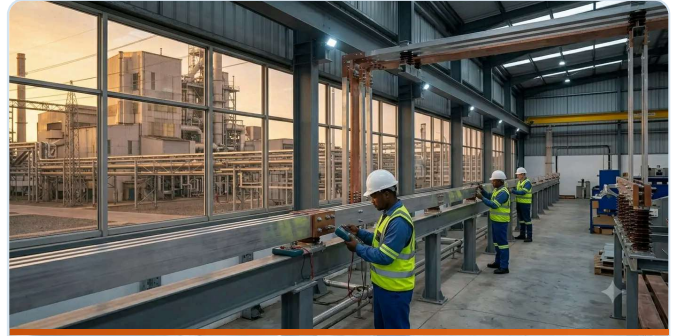
Every service we provide is designed to protect operational continuity, prevent production losses, and future-proof energy infrastructure. ETAP/EPLAN-based engineering combined with protocol-driven field discipline minimises technical risk on every project.



Transformer Substation Erection & Commissioning

Turnkey installation of MV/LV transformer substations (250 kVA–10 MVA), switchgear cells, and power factor correction systems. Migration planning with zero disruption to ongoing production.

- Zero-downtime commissioning target



LV/MV Power Distribution Infrastructure

IEC 60364-compliant low and medium voltage distribution systems, cable networks, and busbar assemblies. Safe sizing through calculated short-circuit and load flow analysis.

- Investment-protected, scalable infrastructure



ATEX / Exproof Hazardous Area Electrical

Zone 0, 1, 2 and Zone 20, 21, 22 electrical installations compliant with IEC 60079 and ATEX Directive 2014/34/EU. Proven references in petrochemical, refinery, and chemical plant environments.

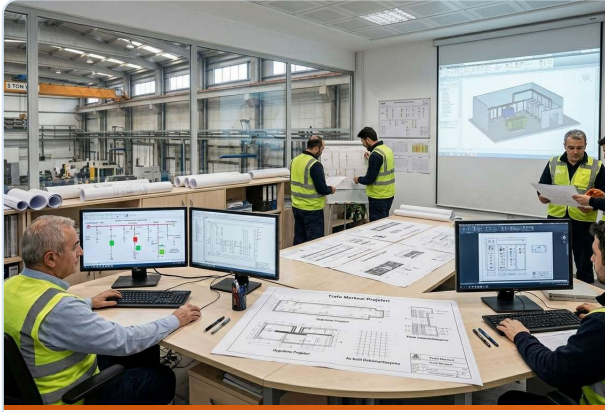
- Zero explosion risk — documented compliance



LV Switchboard & Panel Assembly

Panel fabrication to IEC 61439 standards, cable terminations, and systematic commissioning. Every panel undergoes protocol-based testing prior to handover.

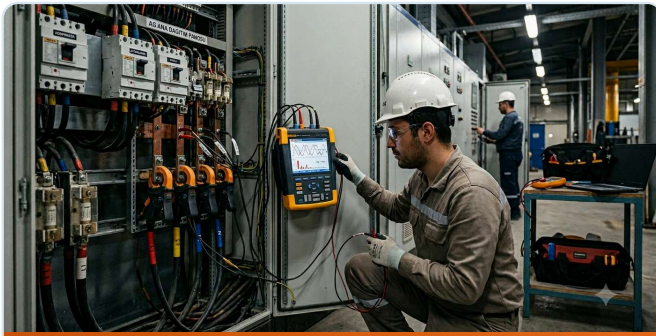
- FAT-verified, guaranteed delivery



Project Consultancy & Engineering

ETAP/EPLAN-based single-line diagrams, short-circuit calculations, and load flow analysis. Independent engineering consultancy, technical specification drafting, and tender support services — backing investment decisions with hard engineering data.

- Independent technical advisory



Harmonic Analysis & Power Quality

Harmonic measurement, filter design, and reactive power compensation under IEEE 519 and IEC 61000-3-2. Extends equipment service life and reduces energy costs.

- Energy loss reduction — equipment protection



HV Operating Authority & Preventive Maintenance

High voltage facility operating authority up to 36 kV, thermographic inspection, and structured preventive maintenance programmes. Pre-fault intervention to eliminate unplanned shutdowns.

- Planned maintenance — no unplanned downtime



Factory & Facility Electrical Installation

Greenfield or brownfield industrial electrical infrastructure. Complete delivery including machine feeds, lighting, switchboards, and busbar systems. As-built documentation as standard.

- Single contract — full accountability



Commissioning & SCADA Integration

Systematic commissioning, power analyser installation, and automation system integration. All tests are conducted on a protocol basis and formally reported to the client.

- Full documentation — traceable commissioning

— QUALITY & PROJECT MANAGEMENT

Our Engineering Discipline & Project Management Approach**Design Process**

- ▶ Short-circuit and load flow calculations with ETAP
- ▶ Single-line diagrams and panel drawings with EPLAN
- ▶ IEC 60364 and TS EN 61439-compliant sizing
- ▶ Client-approved design document package
- ▶ Revision and version control discipline

Testing & Commissioning

- ▶ Protocol-based FAT (Factory Acceptance Test)
- ▶ Site commissioning: insulation and protection relay testing
- ▶ Harmonic measurement and power quality verification
- ▶ Power analyser monitoring and reporting
- ▶ Full system validation prior to handover

KEY STANDARDS WE COMPLY WITH

IEC 60364

IEC 61000-3-2

TS EN 61439

IEC 60079 (ATEX)

IEEE 519

IEC 62271

IEC 61850

TS EN 61643

TS EN 50110

IEC 60034

ISO 45001 Principles

Documentation & Records

- ▶ Complete as-built drawing package
- ▶ Archiving of measurement and test reports
- ▶ Equipment certificate filing
- ▶ HSE site risk records and reporting
- ▶ Comprehensive project handover dossier

Site & HSE Management

- ▶ Pre-project risk assessment
- ▶ Permit-to-Work (PTW) procedures
- ▶ Special isolation protocols in ATEX zones
- ▶ Daily toolbox talks and site safety audits
- ▶ Zero-injury safety culture

— WHY AYÇE INDUSTRIAL?

The Trusted Choice; Proven Competence.

More than 500 completed projects and over 25 years of industry experience speak for themselves. Critical deliveries in refinery, port, steel, and automotive sectors — our technical references say it all.

25+

Years of Field Experience

An unbroken project track record since 2000 across refinery, steel, automotive, and port facilities. Engineering knowledge earned in the field anticipates technical risks before they materialise.

500+

Projects Delivered

On-budget, on-schedule delivery to specification for industrial facilities of every scale. Every commissioned system is backed by documented test protocols.

IEC

International Standard Compliance

Full conformity with IEC, TSE, and IEEE standards. Every delivery is documented — technical packages ready for audit and tender processes as standard.

ATEX

Hazardous Area Expertise

IEC 60079-compliant electrical installation in Zone 0/1/2 and Zone 20/21/22 classified areas. Petrochemical and refinery credentials with TÜPRAŞ, Total Oil, and Clariant references.

EPC

End-to-End Turnkey Delivery

Single-source management from project consultancy through site execution to HV operating authority. One point of contact — zero coordination risk, full contractual accountability.

OEE

Unplanned Downtime Elimination & Operational Continuity

Production continuity is safeguarded through preventive maintenance, thermographic analysis, and rigorous HSE protocols. Pre-fault intervention maximises overall equipment effectiveness.

OUR TECHNICAL STANDARDS COMPLIANCE FRAMEWORK

IEC 60364

IEC 61000-3-2

TS EN 61439

IEC 60079 (ATEX)

IEEE 519

IEC 62271

TS EN 61643

ISO 45001 Principles

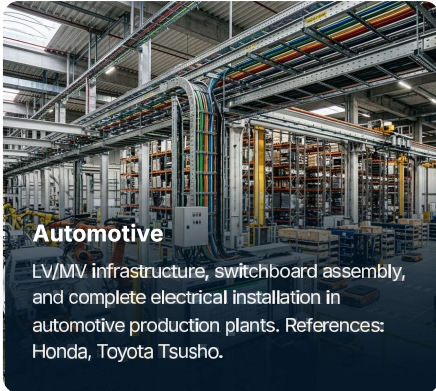
IEC 61850 (SCADA)

TS EN 50110

— SECTOR EXPERTISE

Industries We Serve

Each sector carries its own technical requirements, safety standards, and operational constraints. Our 25+ years of multi-sector field experience directly strengthens our ability to anticipate and address those requirements from day one.



Other Sectors Served: Healthcare • Data Centres • Cement & Mining • Food & Beverage • Rail Systems and more.

— SITE & OFFICE OPERATIONS

From Engineering Design to Final Handover

At every stage of the project lifecycle — from the design desk to site commissioning — we apply the same discipline and rigour.



Design & Project Planning

The office phase of our ETAP/EPLAN engineering process — single-line diagrams and load analysis.



Main Distribution Board Commissioning

Multi-disciplinary team coordination during SCADA integration and protocol-based FAT.



Site Measurement & Analysis

Harmonic and power quality measurements — IEEE 519 and IEC 61000 conformity verification.



Panel Cable Termination & Testing

Systematic cable termination and insulation testing — protocol-based execution targeting zero defects.



MV Transformer & Switchgear Yard

Protection relay testing and MV commissioning — full compliance with IEC 62271.



ATEX / Exproof Site Works

IEC 60079-compliant equipment installation and certification in Zone 1 hazardous areas.

— TECHNICAL CASE STUDIES

Selected Project Case Studies

Drawn from a representative sample of our portfolio, these case studies demonstrate the technical value AYÇE delivers on critical industrial facilities — including risk management discipline and delivery assurance.

1

TÜPRAŞ — Körfez Refinery

Petrochemical & Refinery · ATEX Zone · 2010–2011

Project	Refinery Jetty Fire Safety System Modernisation (Phase 1–2)
Scope	Modernisation of the fire safety automation system in an ATEX Zone 1 classified area — executed live, without any production shutdown.
Solution	IEC 60079-compliant exproof cable and equipment selection, Zone 1 installation, fire detector integration, and commissioning of new ATEX panels.
Outcome	Zero refinery downtime. Full ATEX compliance documentation delivered. Fire safety system upgraded to international standards.

2

ALSTOM — HV Test Laboratory

Heavy Industry · High Voltage · 2013–2014

Project	Gebze — High Voltage Test Laboratory Construction (2 Phases)
Scope	Turnkey installation of MV test infrastructure up to 36 kV, specially insulated cable runs, HV switching equipment, and a digital control system.
Solution	IEC 62271-compliant MV switchgear installation, thermally analysed cable sizing, and commissioning in direct collaboration with the client's engineering team.
Outcome	Infrastructure required for international test accreditation delivered on schedule. Phase-to-phase transition carried out without interruption.

3

MERSİN PORT

Port & Marine · MV Electrical Infrastructure · 2014

Project	Port Crane Electrical Installation & MV/LV Power Supply Infrastructure
Scope	MV cable run, transformer substation, and LV distribution system for STS container crane feeds — installed without disrupting port operations.
Solution	Night-window work schedule, IEC 60364-compliant cable installation, and phased energisation protocol through to MV/LV transformer commissioning.
Outcome	Port cargo-handling capacity maintained at 100%. Crane power feeds transferred to the new infrastructure with zero downtime.

4

THYSSENKRUPP — TOSB Plants

Heavy Industry · Turnkey · 2011

Project	TOSB Welding & Press Plants LV/MV Electrical Infrastructure
Scope	Complete LV/MV electrical infrastructure for two production facilities; turnkey delivery including transformer substation, busbar, machine feeds, and power factor correction.
Solution	ETAP-based harmonic analysis, load balancing optimisation, high-current busbar design, and integrated power factor correction system — design through execution.
Outcome	Production commenced on target date. Harmonic distortion below IEEE 519 limits; equipment service life extended.

— OUR REFERENCES

Selected Reference List

Since 2000, over 500 projects delivered across Turkey's heavy industry, port, petrochemical, and energy sectors. The reference list below substantiates AYÇE's technical expertise and project scope.

500+

Completed Projects

25+

Years Experience

68

Reference Clients

CLIENT / ORGANISATION	LOCATION	YEAR	PROJECT SCOPE & SERVICE TYPE	SECTOR
FUPA ASANSÖR	Dilovası-MOSB	2022	Turnkey LV/MV Infrastructure Design & Electrical Installation	Industry
KARAT GÜÇ SİST.	Çayirova	2021	MV/LV Transformer Substation & Power Distribution System	Energy
ABB-HİTACHI	Tuzla	2021	LV/MV System Modernisation & Technical Compliance Works	Industry
PULVER KİMYA	Gebze-GOSB	2020	Turnkey LV/MV Infrastructure Design & Electrical Installation	Chemical
BEYÇELİK	Çayirova	2018	Turnkey LV/MV Infrastructure Design & Electrical Installation	Industry
BENTELER	Çayirova	2018	Turnkey LV/MV Infrastructure Design & Electrical Installation	Industry
ALSTOM	Gebze	2017	HV Test Laboratory & Existing Infrastructure Extension	Industry
GÜNEŞ DİNAMİK	Dilovası	2017	Turnkey LV/MV Infrastructure Design & Electrical Installation	Industry
BOYDEM	Dilovası	2017	Transformer Substation Erection & LV Distribution Infrastructure	Energy
STAUBLI	Tuzla	2017	Turnkey LV/MV Infrastructure Design & Electrical Installation	Industry
KANCA	Çayirova	2017	Existing LV/MV Infrastructure Extension & Technical Compliance	Industry
SANGO	Çayirova	2015	LV/MV Infrastructure Upgrade & Power Quality Improvement	Industry
BİYONER	Çayirova	2015	Office Building LV Electrical Infrastructure & Energy Distribution	Industry
BEMAS	Dilovası	2015	Turnkey LV/MV Infrastructure Design & Electrical Installation	Industry
TOYOTA TSUSHO	Gebze	2015	Turnkey LV/MV Infrastructure Design & Electrical Installation	Industry
YEŞİLYURT PORT	Samsun	2015	Port Crane Electrical Installation & MV/LV Power Supply Infrastructure	Port
POLİSAN	Dilovası	2015	Warehouse LV Electrical Infrastructure & Power Distribution	Chemical
DÜFA	Tuzla	2015	Turnkey LV/MV Infrastructure Design & Electrical Installation	Chemical
İZMİR DEMİRÇELİK	Aliağa	2014	Port Crane Electrical Installation & MV/LV Power Supply Infrastructure	Port
MERSİN PORT	Mersin	2014	Port Crane Electrical Installation & MV/LV Power Supply Infrastructure	Port
YEŞİLYURT PORT	Samsun	2014	Port Crane Electrical Installation & MV/LV Power Supply Infrastructure	Port
KAYALAR KİMYA	Tuzla	2014	Turnkey LV/MV Infrastructure Design & Electrical Installation	Chemical

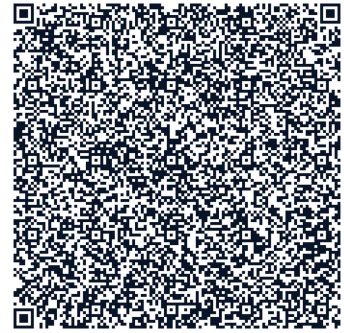
CLİENT / ORGANİSATION	LOCATION	YEAR	PROJECT SCOPE & SERVICE TYPE	SECTOR
POLİSAN	Dilovası	2014	2,500 kVA MV/LV Transformer Substation & Power Distribution System	Chemical
ALSTOM	Gebze	2014	High Voltage Test Laboratory Erection & Commissioning	Industry
GESTAMP	Gebze	2013	LV Machine Feed Cables & Motor Control Centre Installation	Industry
JOKEY PLASTİK	Gebkim	2013	Turnkey LV/MV Infrastructure Design & Electrical Installation	Industry
VESKİM (TROYA)	Gebkim	2013	Turnkey LV/MV Infrastructure Design & Electrical Installation	Chemical
MAUSER AMBALAJ	Çayirova	2013	4,000 kVA MV/LV Transformer Substation & Lighting Upgrade	Industry
OTOCAM	Lüleburgaz	2013	MV/LV Panel Fabrication, Procurement & Site Integration	Industry
POLİSAN	Dilovası	2012	3,200 kVA Transformer & 6 kV MV Distribution Installation	Chemical
BİLFEN	Tuzla	2012	School Building LV Electrical Infrastructure & Energy Distribution	Public
MAUSER AMBALAJ	Çayirova	2011	2,000 kVA MV/LV Transformer Substation & LV Distribution	Industry
HONDA	Gebze	2010	In-house Electrical Works & ATEX Hazardous Area Installation	Refinery
TOTAL	İstanbul	2011	Haramidere Terminal Tank Farm Automation System	Refinery
THYSSENKRUPP	Gebze	2011	TOSB Welding & Press Plants LV/MV Infrastructure	Industry
PİMSA POLİÜRETAN	Gebze	2011	New Production Facility LV/MV Electrical Infrastructure & Transformer	Industry
ERDE (CLARIANT)	GOSB	2011	Chemical Plant Additional Production Unit LV/MV Electrical Infrastructure	Chemical
TÜPRAŞ	Körfez	2010	Refinery Jetty Fire Safety System Modernisation	Refinery
KÖMÜRCÜLER OİZ	Gebze	2010	Industrial Zone Electrical & Telecommunications Infrastructure	Energy
ISYOL	Gebze	2010	1,000 kVA MV/LV Transformer Substation & Power Distribution	Energy
TAISEI CORPORATION	İstanbul	2009	Comprehensive Electrical Infrastructure Design & Execution	Industry
TÜBİTAK MAM	Gebze	2009	Hybrid Building 2,000 kVA Transformer Substation & LV Distribution	Public
TORBAPAK	Gebze	2009	Overhead Power Line (OHL) Installation & Energisation	Energy
MERİNOS CULT.CENTRE	Bursa	2008	Cultural Centre Fire Automation System	Public
OTOCAM	Bulgaria	2008	10 MVA High-Capacity MV Transformer Installation	Industry
TOTAL OIL A.Ş.	Dilovası	2008	Fuel Terminal Island Automation & Biodiesel Plant Electrical	Refinery
AKÇELİK / MAPA	Gebze	2008	Additional Production Unit LV/MV Electrical Infrastructure	Industry
THYSSENKRUPP	Gebze	2007	Integrated LV/MV Infrastructure Design & Electrical Installation	Industry
BİRİNCİ OTOMOTİV	Gebze	2007	1,600+2,000 kVA Dual Transformer Substation & LV Distribution	Industry
HONDA	Gebze	2007	Existing LV/MV Infrastructure Extension & Energy Integration	Industry
SİGARTH	Gebze	2007	Integrated LV/MV Infrastructure Design & Electrical Installation	Industry
AKÇELİK A.Ş.	Gebze	2006	3,200 kVA MV/LV Transformer Substation Design & Installation	Industry
GEZER ENDÜSTRİYEL	Gebze	2006	Integrated LV/MV Infrastructure Design & Electrical Installation	Industry

CLİENT / ORGANİSATION	LOCATION	YEAR	PROJECT SCOPE & SERVICE TYPE	SECTOR
SIEMENS (ASİL ÇELİK)	Bursa	2005	High-Capacity MV/LV Transformer Substation & Distribution	Industry
SIEMENS (CARGILL)	Bursa	2005	6×1,600 kVA Multiple Transformer Substation & LV Distribution	Industry
SIEMENS (İSKO A.Ş.)	İnegöl	2005	4×2,500 kVA MV/LV Transformer Substation & Distribution	Industry
SIEMENS (KANCA)	Gebze	2002	Multi-Year Multiple MV/LV Transformer Substations & Infrastructure	Industry
SIEMENS (ZORLU)	Çorlu/Sincan	2002	Power Generation Facility MV/LV Transformer & Integration	Energy
SOLVENTAŞ A.Ş.	Dilovası	2000	Tank Farm Automation, MV/LV Transformer & Lighting	Refinery
TRAKYA CAM SAN.	Lüleburgaz	2004	8×2,500 kVA Multiple Transformer Substation & LV Distribution	Industry
HAZAMA (TOYOTETSU)	Gebze	2003	LV/MV System Design, Transformer Substation & Distribution	Industry
HAZAMA (YKK PHASE 5)	Çerkezköy	2004	High Voltage Feed & LV Distribution System	Industry
HAZAMA (TOYOTA)	Sakarya	2002	Test Track Electrical Infrastructure & Lighting	Industry
HAZAMA (TAKANICHI)	Sakarya	2001	MV/LV Transformer Substation & Industrial Power Distribution	Industry
CENGİZ MAKİNA	Gebze	2005	Integrated LV/MV Infrastructure & High-Current Busbar System	Industry
TÜPRAŞ	İzmit	2002	Pump Station MV/LV Transformer Substation & Infrastructure	Refinery
KÖRFEZ STATE HOSPITAL	Körfez	2003	Hospital 500 kVA Transformer Substation & Emergency Power Infrastructure	Public

— REQUEST A TECHNICAL CONSULTATION

Let's Evaluate Your Project Together.

Request a complimentary preliminary technical consultation for your energy infrastructure requirements. Our engineering team delivers project-specific solutions backed by hands-on field experience.

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