

ENGINEERING IN DETAIL THAT WORKS

PRODUCING TRULY CONSTRUCTIBLE BIM SINCE 2008



WHERE WE ARE

SDENG is located in Volos, Greece.

A large, dynamic and modern city on the coast of the Pagasetic Gulf, shaded by the beautiful Pelion with its picturesque villages.

Volos is located almost in the center of Greece, between the capital Athens and the second largest city Thessaloniki.

Amongst the many advantages of the city, Volos is home of the Polytechnic University of Thessaly, where the most talented Engineers are recruited every year and join our team.



WHO WE ARE

We are one of the few EU based Engineering Firms, dedicated exclusively to workshop design of super-large steel projects

SDENG was founded in 2008 by Aris Theodorou Structural Engineer AUTH & Vasilis Gastis Mechanical Engineer UTH. The professional background for both of us comes from the steel fabrication industry.

Our first major project was the Elefsis Refinery Upgrade Project (14.000tns) in which the end user was Hellenic Petroleum S.A. and our client was Tecnicas Reunidas S.A.



Reduction of overall construction cost by 10%

WHY WE DO THIS

In SDENG and on every project we seek engineering excellence.

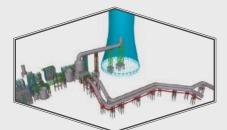
Industrial background and experience in all stages of fabrication is an added value in the engineering work chain and this is our strategic advantage.

BENEFITS OF IMPLEMENTING BIM STRATEGY TO LARGE SCALE

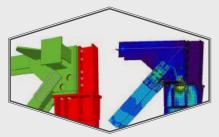
- Reduction of overall construction time by 15%.
 Reduction of overall engineering schedule by 30% due to automated processes and elimination of repetitive tasks.
- Creation of an engineering core that can support and coordinate project teams with no geographical restrictions.
- Homogenized engineering products in Steel-Civil-Pipe-Electrical disciplines and identifying grey areas in between.
- Excellence in engineering products.



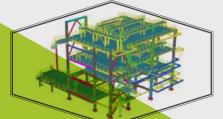
WHAT WE DO



Conceptual Modeling



Connection design using FEM

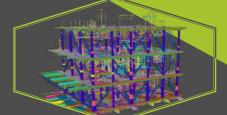


Workshop Design

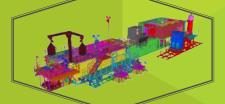
Modeling



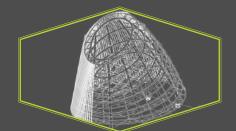
Fabrication Drawings



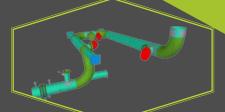
Offshore Structures



Mechanical Structural
Modeling & Workshop Design



Special Steel Structures
Shells, AESS



Pipe Modeling & Workshop Design

CERTIFICATES



CERTIFICATE

Management system as per ELOT ISO/IEC 27001 : 2013

Information Technology - Security Techniques-Information Security Management Systems - Requirements

In accordance with TÜV HELLAS (TÜV NORD) S.A. procedures, it is hereby certified that

SDENG ENGINEERING BUREAU
"IASON" Terminal Building C
382 21 Port of Volos



applies a Management System in line with the above standard for the following scope

Detail Engineering Services by Using Building Information Modeling (B.I.M.) Technology for Structural Steel Projects.

S.o.A.: Version 2, Dated from: 09.09.2022

Certificate Registration No. 048 19 0024 Audit Report No. IS-0143/2022 Valid from 2022-09-25 Valid until 2025-09-24 Initial certification 2019

Must curry
TOV HELLAS (TOV NORD) S.A. Certification Body

Athens, 2022-09-23

Amens, 2022-09-23

This certification was conducted in accordance with the TOV MELLAS (TOV NORD) S.A. auditing and certification procedures and its subject to regular surveillance audits.





TÜV HELLAS S.A. 282, Mesogeion Ave. 155 62 Cholargos Athens, Greece



CERTIFICATE

Management system as per

ISO 9001: 2015

Quality Management Systems-Requirements

In accordance with TÜV HELLAS (TÜV NORD) S.A., procedures, it is hereby certified that

SDENG ENGINEERING BUREAU "IASON" Terminal Building C 382 21 Port of Volos



applies a management system in line with the above standard for the following acope

Detailed Engineering Services by Using Building Information Modeling (B.I.M.) Technology for Structural Steel Projects.

Certificate Registration No. 041 19 0092 Audit Report No. E-3270/2022

3Ka1a12

Valid from 2022-07-04 Valid utili 2025-06-30 Initial certification 2019

Sificate: 2022-06-30

TÜV HELLAS (TÜV NORD) S.A. Certification Body Athens, 2022-

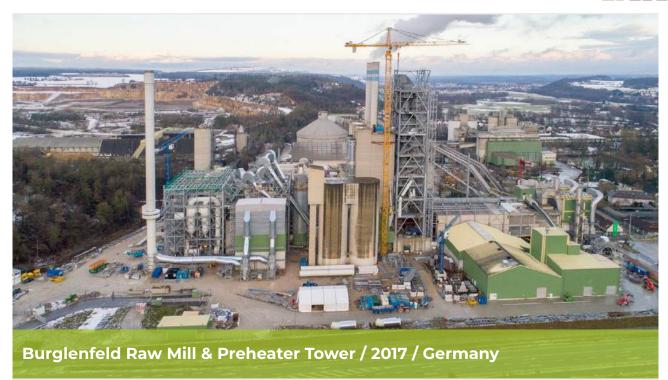
This certification was conducted in accordance with the TÜV HELLAS (TÜV NORD) S.A. auditing and certification procedures and is subject to regular surveillance audits.





TOV HELLAS S.A. 282, Mesogelor Ave., 15552 Cholargos, Alhena, Greece





Client Heidelberg Cement A.G.

Contractor IKN GmbH

Services Detail engineering services, connection & workshop design

Scope 4.500 Tn new steel structures

10 months Duration



Electricity Generating Authority of Thailand Client

Contractor SETEC Energy

Services Detail engineering services, connection & workshop design

8.000 Tn new steel structures Scope

Duration 11 months



Eleusis Refinery Upgrade Project / 2009 / Greece

Client Hellenic Petroleum S.A.
Contractor Tecnicas Reunidas S.A.

Services Detail engineering services & workshop design

Scope 14.000 Tn new & 1.500 Tn revamped steel structures

Duration 12 months



Client LUKOIL

Contractor Tecnicas Reunidas S.A.

Services Detail engineering services & workshop design

Scope 5.000 Tn new steel structures

Duration 9 months



Event Center of Ayia Napa Marina / 2020 / Cyprus

Client ALUMIL
Contractor TERNA S.A.

Services Detail engineering services, workshop design Scope 400 Tn steel, aluminum and glass structures

Duration 6 months



Client ADNOC LNG

Contractor Tecnicas Reunidas S.A.

Services Detail engineering services & workshop design

Scope 16.000 Tn new & 1.000 Tn revamped steel structures

Duration 24 months



Shah Deniz Stage 2 / 2014 / Azerbaijan

Client BP Exploration

Contractor AZFEN Tekfen Engineering

Services Detail engineering services, connection & workshop design

Scope 5.000 Tn new steel structures

Duration 6 months



Baku Olympic Stadium / 2013 / Azerbaijan

Client SOCAR

Contractor Tekfen Construction

Services Detail engineering services, connection & workshop design

Scope 20.000 Tn new steel structures

Duration 12 months





Cessao Onerosa Area Development / 2015 / Brazil

Client Petrobras

Contractor Tekfen Engineering / Technip S.A.

Services Detail engineering services & workshop design

Scope 22.000 Tn new steel structures

Duration 18 months



Client Public Power Company of Greece

Contractor TERNA S.A.

Services Detail engineering services & workshop design

Scope 7.500 Tn new steel structures

Duration 12 months



Upgrade, Maintenance, Management & Operation of Aegean Regional Airports / 2019 / Greece

Client FRAPORT GREECE Contractor INTRAKAT S.A.

Services Detail engineering services, workshop design

Scope 4.000 Tn new steel structures

Duration 12 months





Future Camp Nou

Client Spotify Technology S.A.

Contractor LIMAK HOLDING

Services Detail engineering services, connection & workshop design

Scope 35.000Tn new steel structures

Duration 24 months



REFERENCES 2013-2023

| YEAR | PROJECT | LOCATION /CLIENT | TONNAGE (tns) | DESIGN STANDARDS |
|------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------|---------------------|
| 2023 | UP3-Future Camp Nou | SPAIN/LIMAK GROUP/FC BARCELONA | 32000 | EN |
| 2022 | Abu Dhabi Polymers Company Ltd. Borouge 4 | UAE/ADNOC& BOREALIS AG | 12000 | AISC |
| | RLTO EXPANSION AND OFFPLOT FACILITIES OF THE NORTH FIELD EXPANSION PROJECT (EPC-3) | QATAR/Tecnicas Reunidas | 4000 | AISC |
| | Ammonia Urea Kingisepp2 (RU) EPC / RUSSIA | RUSSIA/TCM | 4000 | GOST |
| 2021 | ArcelorMittal Italia Desulfurization Project | ITALY / tkIS | 250 | EN |
| | CBR Project Cogen PI & BOP Project | CANADA / Tecnicas Reunidas | 2500 | CISC |
| | Prototype Electrolysis Plant HyLIOS | NA / tkUCE | 7000 | EN |
| 2020 | Arctic LNG 2 Project | RUSSIA / TechnipFMC, Renaissance Construction | 15000 | GOST |
| | NEW NAPHTHA COMPLEX EPC MOTOR OIL (HELLAS) — CORINTH REFINERIES S.A. | GREECE / TechnipFMC | 5000 | EN |
| | NCIC Fertilizer Complex | EGYPT / tkIS | 7000 | EN |
| 2019 | ADNOC INTEGRATED GAS DEVELOPMENT PHASE II | UAE / Tecnicas Reunidas | 15000 | AISC |
| | MOL POLYOL PROJECT | HUNGARY / tkiS | 7000 | EN |
| | UPGRADE MAINTENANCE MANAGEMENT & OPERATION OF 15 REGIONAL AIRPORTS | GREECE / Fraport S.A. | 4000 | EN |
| 2018 | BFI Fertilizer Complex | BRUNEY / tkIS | 2000 | AISC |
| | AST2 PROJECT | CANADA / Tecnicas Reunidas | 6500 | CISC |
| | PTOLEMAIS UNIT V 660MW POWER PLANT | GREECE / Public Power Company | 7500 | EN |
| | HEYDAR ALIYEV REFINERY | AZERBAIJAN / SOCAR AZFEN TEKFEN | 2500 | AISC |
| 2017 | BURGLENGENFELD RAW MILL AND PREHEATER TOWER | GERMANY / HEIDELBERG CEMENT A.G. | 4500 | EN |
| 2016 | TRANS ANATOLIAN NATURAL GAS PIPELINE PROJECT | TURKEY / TEKFEN | 1500 | AISC |
| | SHELVER CEMENT CO | GERMANY / HEIDELBERG CEMENT A.G. | 3000 | EN |
| | GAS TRAIN 5 PROJECT MMA REFINERY | UAE / Tecnicas Reunidas | 8500 | AISC |
| 2015 | DEIR ALI II COMBINED CYCLE POWER PLANT | SYRIA / ANSALDO ENERGIA METKA GROUP | 3500 | EN |
| | MAE MOH POWER PLANT SETEC ALSTOM POWER SYSTEMS | THAILAND / ELECTRICITY GENERATING AUTHORITY OF THAILAND SETEC ENERGY | 8000 | AISC |
| | CESSAO ONEROSA AREA DEVELOPMENT VESSEL P-76 | BRAZIL / TechnipFMC, TEKFEN | 22000 | AISC |
| | ONSHORE PIPELINE & HABSHAN MODIFICATIONS | UAE / Tecnicas Reunidas | 7500 | AISC |
| 2014 | SHAH DENIZ STAGE 2 PROJECT | AZERBAIJAN / AZFEN TEKFEN | 5000 | EN |
| | CMS CLINKER SDN. BHD. | MALAYSIA / Christian Pfeiffer | 3000 | EN |
| | NWR Sturgeon Refinery Project | CANADA / Tecnicas Reunidas | 1000 | CISC |
| 2013 | VGO Deep Processing complex (Stage 1) | RUSSIA / Tecnicas Reunidas | 5000 | GOST |
| | Baku Olympic Stadium | AZERBAIJAN / SOCAR TEKFEN | 20000 | EN |
| | Eurorig 10 | ALGERIA / BENTEC | 500 | EN |

ENGINEERING BUREAU

sdeng.gr

SDENG Engineering Bureau
IASON Terminal Building, Block C, Port of Volos, Greece, PO Box GR 38221
N 39.358866 / E 22.944539
T. +30 24210 44024

Commercial Register: No.44536, VAT No. EL 800390903