

Surname: Songini

Name: Francesco

Nationality: Italian

Education: University Degree in Civil Engineering with structural address at Polytechnic of Milan, April 2005.
Member of the Engineers List of Engineer Order of Sondrio enrolment n. 688 from 11/04/2006

Languages: Italian: mother tongue
German: good
English: written: good; spoken: scholastic/elementary

Contract Type: Owner

Professional profile: Civil Engineer responsible for calculation and design of civil and industrial structures in steel, in normal and prestressed reinforcement concrete, in masonry and wood and for the preparation of metric estimations and the technical supervision of civil works during constructions in yard.
Various work experience on smaller projects dealing with the design, supervision and inspection assistance of reinforcement concrete building and steel structures.

Following the most important experiences in collaboration with DCRPROGETTI:

2022	SAIPEM	Models checks of a piperack and a FLNG module for ZLNG preliminary project at Sipitang, Sabah (Petronas – Malaysia). Checks concerned installation and operating phases (transport, lifting, in-service and blast) in accordance with American Code and Standard (AISC, API, ISO).
2022	SAIPEM	Models checks of two FPSO piperacks of Gato do Mato Project (Brazil). Checks concerned installation and operating phases (transport, lifting, in-service and blast) in accordance with American Code and Standard (AISC, API, ISO).
2022	SAIPEM	Detailed design of the substructures for the jacket of Quiluma platform (depth 82 m) located in Atlantic Ocean (Angola). Checks are according to ISO-19902 and Eurocode.
2021-22	SIIRTEC NIGI	Engineering advice services about steel, civil works and person-hours valuations for the development of the preliminary (FEED) and detailed (EPC) design of industrial plants (petrochemical field).

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2021	TECNIMONT	Preliminary study with the scope to obtain weight indexes of steel and concrete structures for Zarqa Refinery 4th Expansion Project in Jordan. The analysis regard n. 8 pipe racks (steel and reinforced concrete), n. 2 process structures with mixed steel and reinforced concrete structure and relevant foundation slabs and n. 3 process column foundations, in accordance with American standards (ACI318, AISC360, ASCE7).
2020-2021	SAIPEM	Feed with the scope of comparing weight indexes of steel structures stick-built vs modular structures (welded) of Rabigh II Project (Saudi Arabia). In addition to bill of quantities, the study also concerned the different construction methods typical of a modular structure, analysing installation phases (load-out, transport, jack-down and in-service). Project includes a dynamic study of a module with vibrating equipment. Checks were carried out in accordance with the American standard (AISC360).
2019/20	SAIPEM	Detailed design of the structure of D33 Platform LUKOIL located in Baltic Sea – Russia.
2018/19	WOOD – FOSTER WHEELER	Engineering activities and structural design for steel structure and reinforced concrete foundations - HELPE Aspropyrgos - Grece
2018	WOOD – FOSTER WHEELER	Engineering control activities for ASORC NAPHTHA Project Egypt
2018	WOOD – FOSTER WHEELER	Engineering activities and structural design for revamping of Gas Turbine reinforced concrete foundations in Sarlux Refinery in Sarroch, Sardinia
2017/18	RINA	Structural design of modularized steel structure of Porto de Sergipe Power Plant - Brazil
2016/17	BEDESCHI	Engineering activities related to support structures. Tapes and towers connected to the project of the dry-bulk terminal handling system - Turkmenbashi International Seaport - lot5 – Turkmenistan
2015/17	SAIPEM	Planning, check, design, drawing of steel structures pipe rack and reinforcement concrete foundation of the revamping ARAMCO Petroleum GOSP Plan (Khurais – Saudi Arabian)
2013/16	SAIPEM	Structural design, calculation and 3D modelling of module for EPC Kashagan field development experimental program. Analysis of different phases of construction: lifting procedure, transportation procedure, load out ,load in phases and drop analysis.
2013	SAIPEM	Detail analyses of Elettra platform 78 m water depth. The analyses include loadout, transportation and lifting. The platforms will located in the Adriatic Sea.
2013	VERSALIS-SARROCH	Maritime structural requalification of the Sarroch jetty docks. The analysis required a feasibility study for the requalification of the two existing platforms to dock with a major vessels DWT then the present one (respectively from 6000DWT to 9000 DWT and from 18000 DWT TO 25000 DWT). This study allowed to prepare a technical specification for the NDT research execution, necessary to define the parameters necessary to the detailed design of the structure requalification interventions.

2013	SAIPEM	Detailed design of steel structure pipe rack and relevant foundations in the "Oil and Gas" plant SSAGS, in Nigeria. Structural checks in according with Eurocode 2 and 3. Structural analyses in load-out, load-in and sea transportation and in-service conditions.
2012/13	ALBIZZATI - ICHTHYS	Structural analysis for the design of three stainless steel pipes for Ichthys half-submersible platform in Australia. Structure static behavior checks (according with ISO19901, EC3 1.6, ECCS TC8) and structure stress behavior checks (according with DNV-RP-2013). Study of the thermo-mechanics behavior of the pipes supports with specific models F.E.M.
2012	ALEXSISTEMI	Structural analysis for the upgrade of an industrial building in Egypt. Blast-analysis of the plant with the simplify method of static forces according to ASCE standards: <i>"Design of blast resistant buildings in petrochemical facilities"</i> . Structural verifications in according with ACI318 standard for steel-concrete connections and AISC (ASD and LRFD) for the steel components and connections.
2012	FOSTER WHEELER	Stress analysis, modal and spectrum analysis for steel structures for Power Plant in Ferrara (Italy). Checks in accordance with EC 3, EC 8 and NTC2008.
2012	TECHNITAL - GLF	Structural analysis for the design of the jetty of Vado Ligure. The analysis has requested verification of the displacements in static and seismic conditions in order to optimize the size of the expansion joints and the actions on the support systems. The checks were conducted in accordance with the Italian rules NTC2008 and with EC 8.
2011/12	SAIPEM	Structural design and calculation of module for Staatsolie Refinery Expansion Project - Suriname. Analysis of different phases of construction: lifting procedure, transportation procedure, load out phases.
2011	SAIPEM	Browse Project - Australia. Stress analysis of steel structures and foundations design for vessel and tank, checks in accordance with AS3600 and AS/NZS 1170.0:2002 code.
2011	TECNOMARE	Revamping of 18 Helideck-Platforms. Checks in accordance with ICAO, ISO-19902, API and AISC code.
2011	MWH	Design and structural analysis of subway reinforced concrete basins for BreBeMI highway.
2010	SAIPEM	Hasbah Platform (Saudi Arabia). Analysis for the Platform FEED. The jacket is in 55m water depth, the design include the In-service, Lift, Transport and Loadout Analyses. Platform weight 4000 tons.
2010	SAIPEM	Froy Platform (Norway). Analysis for the Deck of Platform FEED (800 tons.). The design include the In-service, Lift, Transport and Loadout Analyses.
2010	SAIPEM	Structural design and calculation of an offshore module (100 tons) for D-Island Rig Conversion - Kashagan. Analysis of different phases of construction: lifting procedure, transportation procedure, load out phases.

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2010	SAIPEM	Design of pipe support for the OLT regassification in Livorno (Italy).
2009/10	SAIPEM	Structural design and calculation of offshore modules (T18/T20) for OLT (Offshore LNG). Analysis of different phases of construction: lifting procedure, transportation procedure, load out phases. Modules weight 700 tonnes.
2008	MAIRE/TECNIMONT	Stress analysis, modal and spectrum analysis, of two sylos (height 36m) and relevant foundations, FGD Auxiliary Building – New Coal Power Plant (Bocamina – Chile) with A.C.I. and “Norma Chilena Oficial” code. Steel 600 tons.
2008	LITWIN	Structural design of concrete building and relevant foundations, for Ma’aden Phosphate Project - Phosphoric Acid Plant (Ras Az Zawr – Saudi Arabia) with A.C.I. code. Concrete 6.000 m ³ .
2007	SNAMPROGETTI	Reinforced concrete Sea Water Intake of BANDAR ABBAS Gas Condensate Refinery IRAN.
2007	SNAMPROGETTI	Design of reinforcement concrete culvert and foundations of equipment of Polyethylen production Plan (QATOFIN – Qatar).
2007	SNAMPROGETTI	Stress analysis of piperack steel structures and relevant foundations of Petroleum GOSP Plan (Khurais –Saudi Arabian) with the check of all members and node with L.R.F.D. and A.C.I. code. Steel 10.000 tons; concrete 10.000 m ³ .
2005/7	SNAMPROGETTI	Stress analysis of piperack steel structures and relevant foundations, piperack reinforcement concrete precast and relevant foundations, equipments foundations of Petroleum GOSP Plan (Khursaniyah –Saudi Arabian) with the check of all members and node with L.R.F.D. and A.C.I. code. Steel 30.000 tons; concrete 60.000 m ³ .

Informatic knowledge: **Operative system:** Microsoft Windows Operating Systems

Office automation: Microsoft Office suite

Graphic: AutoCAD

Structural analysis: SAP 2000 NL, GT STRUDL, SACS, MIDAS-Gen, SolidWorks

Milan, December, 21, 2022