



Company Presentation





VONA



Vona International

Vona Uluslararası Ticaret ve İnşaat A.Ş.

Est. 2002, Istanbul



Vona is an EPC/Turnkey contracting company



Team of 20 people

Excluding site personnel



ISO 9001:2015 | OHSAS 18001:2007



HS&E 'Zero accident work environment'





Fields of Activity

Life Sciences Facilities

Pharmaceuticals / API
Biotechnology
Medical device production
GMP and GLP laboratories
Clean rooms

Industrial Facilities

Commercial
Government

Buildings

Semiconductor
Defence Industry
Automotive / Appliance
Food / Packing

Process Technologies

Pharma / Medical
Automotive
Appliance
Packaging





Services

Design & Engineering

Basic &
Preliminary Design

Detailed Engineering

Value Engineering &
Cost Optimization

Turnkey Construction

Civil works
Clean rooms

MEP
BMS/EMS

System / Process
Supply & Installations

FAT / SAT
Start-up & Commissioning

Qualification, Validation &
Tech. Documentation

Training
Trial production
Permitting & Licensing

Project Management

Design & Construction
Management

Sub-contractor Supervision

Planning & Scheduling

Technical Assistance
Services

Service & Maintenance

Warranty Period
Management

Periodical Maintenance
Services

Equipment / System
Optimizations





Technical Assistance Services

Recipe Implementation*

Process Validation*

Supervision of Production

Recruiting Assistance

Training of Personnel

Permit and Licensing
*(License for production,
product license dossiers*
Ministry of Health –
Ministry of Agriculture
GMP inspections)*

Supply Chain Management

Sales & Marketing
Assistance






Distributorship Network
Set Up

**Not for all product groups.*










Design & Execution Philosophy

-  In accordance with standards and guidelines
(cGMP/GLP, USP, FDA, CDC/NIH, WHO, ISPE, ASHRE)
-  Selection of high quality material and workmanship for sustainable performance at optimum cost
-  Ensuring the same results in every batch of production
-  Maintaining the sufficient flow of material, personnel, product and waste
-  Minimizing the personnel's interference with the systems





Design & Execution Philosophy

-  Highly applicable, requiring minimum revisions at jobsite throughout the construction
-  Enabling the monitoring, managing and reporting of the systems and facility
-  Selection of system components and spares easy to access in the market
-  Building a documentable system that forms the infrastructure of Quality Management System / Pharmaceutical Quality System
-  Minimizing the total cost of ownership through optimized investment, operation and maintenance costs





Solution Partners



Solution Partner

- Co-contracting
Process Design & Engineering
- Process Engineering – Pharma/Biotech
- Biopharma Consultant
- Architecture
Authority Eng. & Permit. Lead
- Process Technology
- Process Equipment / Workshop



AUSTROPLAN
AUSTRIAN ENGINEERING GMBH



IDL -bio



KIEFEL
TECHNOLOGIES











Solution Partners

KIEFEL
TECHNOLOGIES



-  Blood-Bag Machines
-  Blood-Filter Machines
-  Filling Machines
-  Catheter Assembly Machines
-  Radio Frequency Generators
-  Infusion-Bag Machines
 - Thermo-contact (TC)
 - Radio frequency (RF)





Vona



KIEFEL
TECHNOLOGIES



Pharma / Medical

RF Generators, Filling Machines, IV Bag and FFS Machines (Thermo Contact / Radio Frequency), Blood Bag / Filter Machines, Ostomy and Urine Bag Machines, Catheter Assembly Machines, Shuttle Table KST/KSR Line, Special Applications



Automotive

Forming and Laminating Machines, Edge Folding Units, Press Laminating, ASC Riveting, HF-Welding, Slush-moulding, Coated Films, Punching, Pressing, Thermoforming Simulation



Appliance

Inline Thermoforming Machines for Refrigerator Inner and Door Liners



Packaging

Steel-rule Cutting, Cup Forming, Upstream Equipment, Thermoforming Tools, Thermoforming, Injection Moulding and Blow Moulding Technologies





Management & Key Personnel

Göker Sönmez Managing Partner MBA, Strategic Mgmt. & Finance	M.Zahit Bekman Architect Project Manager	Can Elmas Dipl. Architect Design Partner – AE
Özgür Yazar Managing Partner MBA, Strategic Mgmt.	Gül Aydın Mechanical Engineer Mech. Coord.	Alper Konan Chemical Engineer Project Leader / Process Design Lead
Burak Kutal General Coordinator / Vona CEO / Zoleant	Ahmet Yılmaz Mechanical Engineer Mech. Site Coord.	Özgür Özkan Mechanical Engineer Project Leader / Pharma Process
Mehmet Bayrak Dipl. Arch. / Civil Engineer Coordinator	Mehmet Özserçe Mechanical Design Resp.	Kıvanç İnceoğlu Mechanical Engineer Site Manager
Barış Akyıldız Electrical Engineer Pharmaceutical Tech. Consultant	Özlem Özer Chemist Quality System Supervisor	Aydın Gündüz Mechanical Engineer Site Engineer
Alper Kesim Project Manager, Biotech	Didem Güner Kılıç Quality Manager Chemist / Ind. Pharmacist	Emine Taşhan Licensing Manager Ph.D., Pharmacist
Süha Miraç Kaya General Director Ph.D., Pharmacist	Hadi Attaran Doctor of Vet. Medicine Ph.D., Pharmacist	Nilay Yücesoy Akbaş Licensing Specialist Ph.D., Pharmacist





Key Customers



TTS / Turktipsan



Turkish Department of Defence



Bechtel International / US Department of Defence



EADS Astrium



Turkish Grain Board – Opium Alkaloids Plant

Meno International



IMIP / Integrated Medical Industries



Vilsan / Merck MSD



Tübitak Space Tech. Research Inst.





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



Completion Year: 2005

EPC / Turnkey Contract (FIDIC)

Design, Engineering, Construction, Supply,
Installation, Start-up, Commissioning
Documentation, Licensing and Tech.Assistance

Project completed with Zero Accidents
Early Completion - 2 months

6 million PP bags/year with 1shift operation
35 million PP bags/year as of 2016

Plant and Process Technology based on :
cGMP and cGLP Guidelines of EC
ISO/EN standards
Pharmacopia – Ph Eur
WHO Guideline





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



SCOPE OF PROJECT

22.000 m² total construction area

6.300 m² building area

Production Plant

Quality Control Laboratories

Office Building

Social Facilities & Accommodation Building

Warehouses

Waste Water Treatment Facility





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



Purified Water Production

Water for Injection Production

Automatic CIP / SIP system inline sterilization pipelines

Sterile Filters





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



Reverse Osmosis Plant

Purified Water Storage Tank 10,000 l

Continuous Ring Piping System

WFI Storage Tank 80 – 85°C 15,000 l

Pure Steam Sanitation





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



Class C Clean Room

Raw Material Preparation
(Weighing and Balancing)



Set of Scales and Balance w Different Sensitivity





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



Class C Clean Rooms

2 x 5,000 l Pressure Mixing Vessels

Magnetic Coupled Solution Prep. Tanks

Pre Filtration

Sterile Filtration for Solutions

Process Automation





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



Class C Clean Room Production Area

Epoxy Coated Floors

Compact Laminate Clean Room Walls and Ceilings

FFS Form Fill Seal Line

Filling Under Class 100 Laminar Flow

4,000 Pouches/hour – 500 and 1,000 ml





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



2 Hot Water Sterilizers with 4,500 pouches capacity of each

Double Door Model with Heating by External System (Steam Generator)

System Protected Against Overpressure

PLC Control





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



Chemical, Bacteriology Laboratories

Class B Clean Room Sterility Test Area

Stability Rooms

Designed according to GLP

Animal Breeding Area

Pyrogen Testing

Laminar Flow Units





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005





Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005

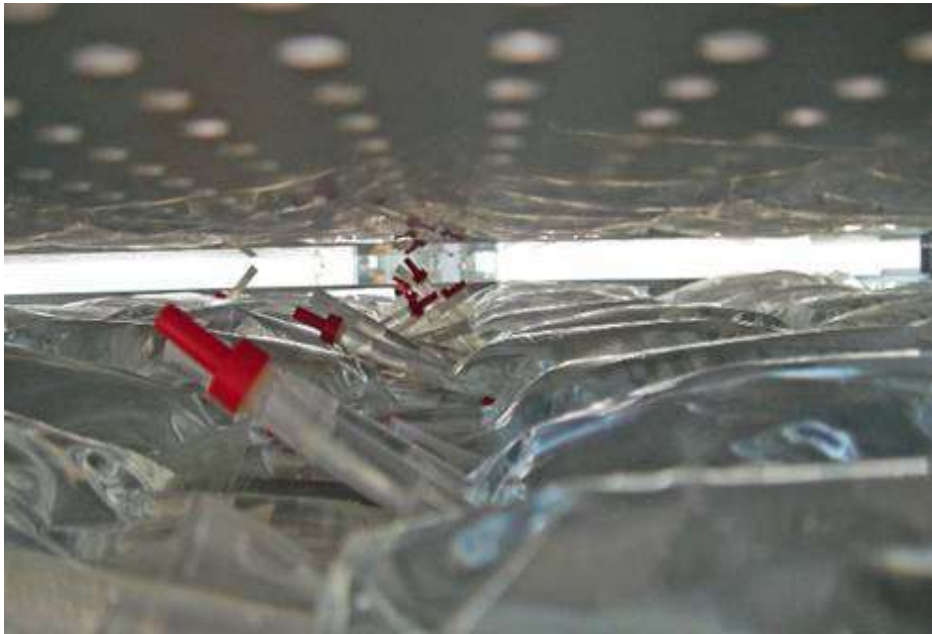




Key Projects

Turktipsan A.Ş.

Parenteral Solution Production Plant, Ankara, 2005



IQ, OQ and PQ of the Systems

Calibrations

Product Validations

All Licenses and Permits Required for Production

2 Months Trial Runs

Feasibility Studies

Training of Owner's Personnel

ISO Documentation





Key Projects

AAF Opium Alkaloids Plant

Turnkey Production Facility Projects, Afyonkarahisar, 2007 - 2011





Key Projects

AAF Opium Alkaloids Plant

Turnkey Production Facility Projects, Afyonkarahisar, 2007 - 2011



- Civil works design
- Construction of cleanroom and controlled areas
- Electromechanical design
- Mechanical and electrical works
- BMS (Building Management System)
- Process design
- Supply of machine and equipment including reactors, centrifuges and installation of process
- Start-up and commissioning

Project Highlights:

Zero Accidents, Dust controlled Exproof areas





Key Projects

AAF Opium Alkaloids Plant

Turnkey Production Facility Projects, Afyonkarahisar, 2007 - 2011





Key Projects

AAF Opium Alkaloids Plant

Turnkey Production Facility Projects, Afyonkarahisar, 2007 - 2011





Key Projects

AAF Opium Alkaloids Plant

Turnkey Production Facility Projects, Afyonkarahisar, 2007 - 2011





Key Projects

Bechtel International Systems, Inc. / US Department of Defence
BTRP Central Reference Laboratory, Tbilisi / Georgia, 2008
'+1.300.000 Incident Free Job Hours'





Key Projects

Bechtel International Systems, Inc. / US Department of Defence
BTRP Central Reference Laboratory, Tiflis / Gürcistan, 2008
'+1.300.000 Incident Free Job Hours'





Key Projects

AAF Opium Alkaloids Plant

Production Facility and R&D Lab (cGMP and FDA) Turnkey Project Bolvadin / Afyonkarahisar, 2014



- Civil works design
- Construction of cleanroom and controlled areas
- Electromechanical design
- Mechanical and electrical works
- BMS (Building Management System)
- Process design
- PW Generation System and distribution
- Supply of laboratory equipment, walk-ins, glass reactors for R&D works
- Start-up and commissioning

Project Highlights:

- Zero Accidents, Full Equipped R&D Lab
- Exproof areas





Key Projects

AAF Opium Alkaloids Plant

Production Facility and R&D Lab (cGMP and FDA) Turnkey Project Bolvadin / Afyonkarahisar, 2014





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AAF Opium Alkaloids Plant

Production Facility and R&D Lab (cGMP and FDA) Turnkey Project Bolvadin / Afyonkarahisar, 2014





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Production Facility and R&D Lab (cGMP and FDA) Turnkey Project Bolvadin /
Afyonkarahisar, 2014





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Production Facility and R&D Lab (cGMP and FDA) Turnkey Project Bolvadin / Afyonkarahisar, 2014





Key Projects

AAF Opium Alkaloids Plant

Production Facility and R&D Lab (cGMP and FDA) Turnkey Project Bolvadin / Afyonkarahisar, 2014





Key Projects

Vilsan / Merck MSD

Veterinary Products Production Plant Design, Supply and Build
Turnkey Project, Akyurt / Ankara, 2016



- Civil works
- Clean rooms
- HVAC
- BMS
- Electrical works
- PW / WFI / CS Generation & Pharma piping
- Start-up and commissioning
- Validation and Documentation

Project Highlights:

- Zero HSE Incident
- Largest Veterinary Pharmaceuticals Manufacturer
- Production License and GMP Certificate obtained





Key Projects

Vilsan / Merck MSD

Veterinary Products Production Plant Design, Supply and Build
TurnkeyProject, Akyurt / Ankara, 2016



3 Production Buildings

Injectable, Oral Solution and Solid Production Areas
IM Solution, Mastitis and Powder Production Areas
Ectoparasite products building

QC/Microbiological/R&D laboratories, energy building,
offices, storage and technical areas





Key Projects

Vilsan / Merck MSD

Veterinary Products Production Plant Design, Supply and Build Turnkey Project, Akyurt / Ankara

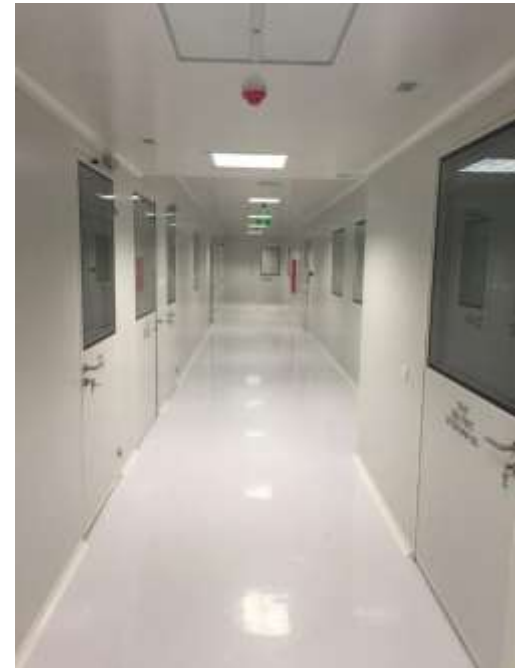




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Vilsan / Merck MSD

Veterinary Products Production Plant Design, Supply and Build
TurnkeyProject, Akyurt / Ankara, 2016





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Key Projects

Vilsan / Merck MSD

Veterinary Products Production Plant Design, Supply and Build
Turnkey Project, Akyurt / Ankara, 2016





Key Projects

TMO Opium Alkaloids Plant

Pharmaceutical Milling System

Supply and Installation Project, Bolvadin / Afyonkarahisar, 2016



- Pharmaceutical Milling System
- N2 Generation and resirculation system
- Utilities
- Automation system
- Exproof design
- Start-up and commissioning
- Validation and Documentation

Project Highlights:

Exproof clean room and equipment





Key Projects

TMO Opium Alkaloids Plant

Pharmaceutical Milling System

Supply and Installation Project, Bolvadin / Afyonkarahisar, 2016

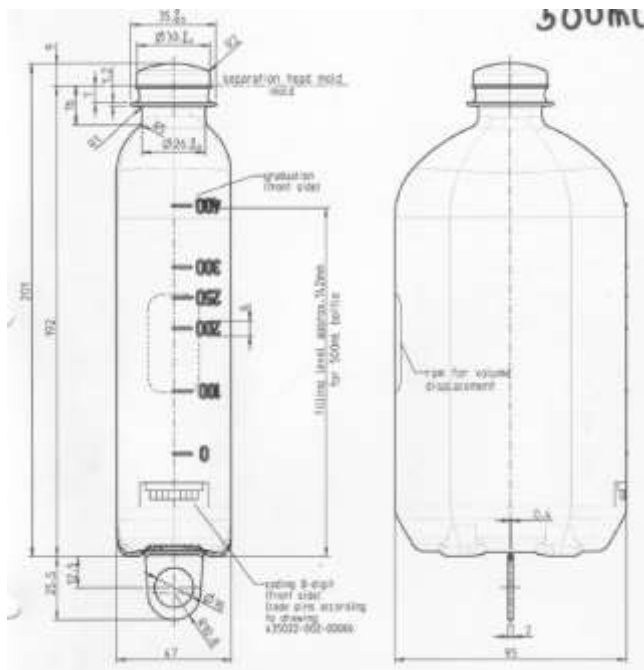




Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up of Systems, Port Harcourt / Nigeria



Borehole Drilling and Water Transfer Lines
Water Treatment System
PW / WFI Storage Tanks
Cooling water and Ind. Steam supply and dist.
Raw Material Transfer Systems
PE Vials and Bottles Capping Systems
Labeling and Cartoning Lines
Loading / Unloading Stations
6 BFS production lines

Project Highlights:

One of the Largest IV Sol. Plant in Africa
Design and Supply of Custom Lines
FATs with fully installed lines





Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria



6 BFS production lines:

500 ml PE Bottles	6000 units/hr
1000 ml PE Bottles	3600 units/hr
5&10 ml vials	12.000 units/hr
5&10 ml ampoules	20.000 units/hr

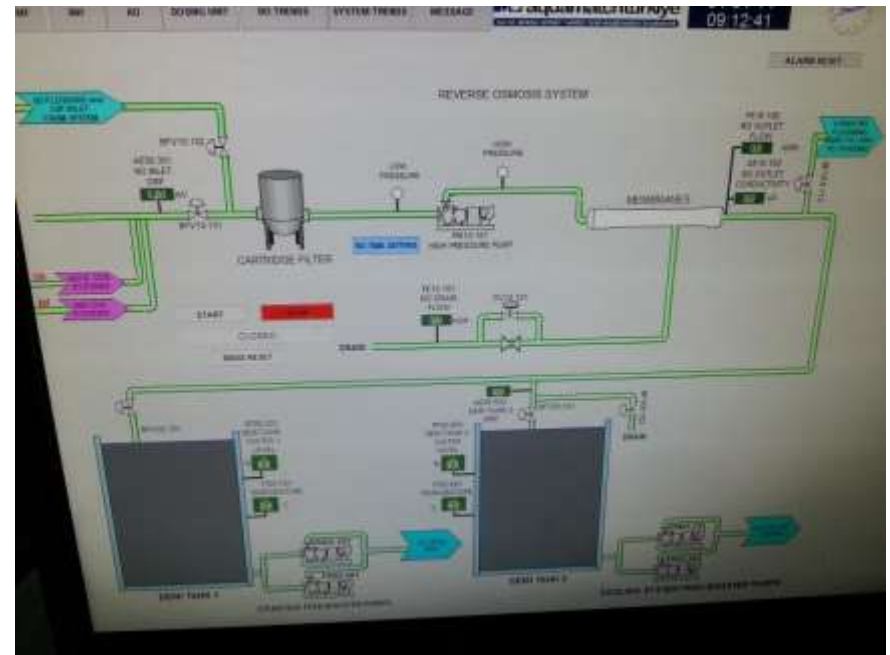




Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria





Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria



Labeling and cartoning lines:

Bottle, vial and ampoule labeling machines

Sales carton and box labeling machines

Carton erectors

Capping machine

Single cartoning machine

Camera controlled system

Complete line integration

Design and supply of labels, prosp., cartons etc.

Complete line operation and FAT





Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria





Key Projects

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IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria





Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria





Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria



Industrial Utilities

Chillers	2 x 1000 kW
Cooling towers	2 x 2250 kW

Cooling water automation system
Chemical treatment system





Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria





Key Projects

IMIP Integrated Medical Industries

IV Solutions Plant - Design, Supply, Installation and Start-up Systems, Port Harcourt / Nigeria





Key Projects

Tübitak Space Technology Research Inst.

Opmer Optical Systems Research and Integration Facility
Design, Supply and Build Turnkey Project, Mamak / Ankara



Civil works
Clean rooms
HVAC
BMS
Electrical works
UPW Generation System
Start-up and commissioning
Validation and Documentation

Project Highlights:

Optical Systems of satellites will be developed and manufactured





Key Projects

Tübitak Space Technology Research Inst.

Opmer Optical Systems Research and Integration Facility
Design, Supply and Build Turnkey Project, Mamak / Ankara





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Tübitak Space Technology Research Inst.

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Design, Supply and Build Turnkey Project, Mamak / Ankara





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Tübitak Space Technology Research Inst.

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Design, Supply and Build Turnkey Project, Mamak / Ankara





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Tübitak Space Technology Research Inst.

Opmer Optical Systems Research and Integration Facility
Design, Supply and Build Turnkey Project, Mamak / Ankara





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Tübitak Space Technology Research Inst.

Opmer Optical Systems Research and Integration Facility
Design, Supply and Build Turnkey Project, Mamak / Ankara





Key Projects

Tübitak Space Technology Research Inst.

Opmer Optical Systems Research and Integration Facility
Design, Supply and Build Turnkey Project, Mamak / Ankara





Key Projects

Santa Farma

Pharmaceutical Milling System

Installation and Start up Project, Kocaeli, 2017



Pharmaceutical Milling System
N2 resirculation system
Automation system

Project Management
Equipment Insallation
Pharma piping and instrumentation
Electrical and mechanical installations
Start-up and commissioning
Validation and Documentation

Project Highlights:

Exproof clean room and equipment
Successful installation planning in an operating facility





Key Projects

Santa Farma

Pharmaceutical Milling System

Installation and Start up Project, Kocaeli, 2017





Current Projects

QG Angola IV Solutions Turnkey Project Cabinda / Angola



EPC / Turnkey Contract (FIDIC)
Design, Engineering, Construction, Supply,
Installation, Start-up, Commissioning
Documentation, Licensing and Tech.Assistance

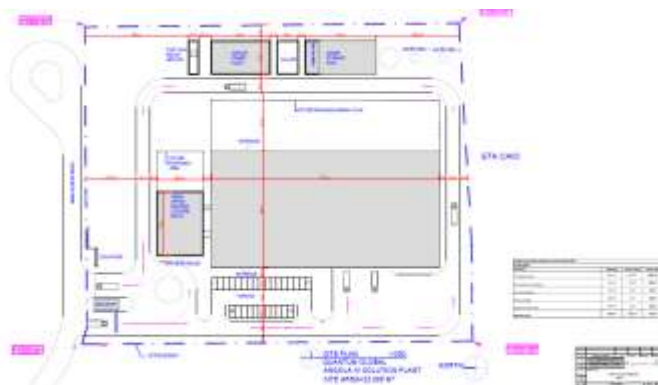
Phase 1: Design & Basic Engineering
Phase 2: EPC / Turnkey (Detailed Engineering,
Procurement and Construction)
16.000.000 bags/year of 500 ml PP bags, 2 shifts





Current Projects

QG Angola IV Solutions Turnkey Project Cabinda / Angola



Area 1 - Site Master Plan Design Master	Area 2 - General Layout Design Master	Area 3 - Section Layouts Design Master	Area 4 - Floor Loads Design Master
Area 5 - 3D Visuals Design Master	Area 6 - Utility and HMC Requirements Design Master	Area 7 - Equipment List Design Master	Area 8 - EMS and EMS Requirements Design Master
Area 9 - Underground Tank Requirements Design Master	Area 10 - RW, WW and Sewage Requirements Design Master	Area 11 - Electrical Loads Design Master	Area 12 - Fire Fighting Plan Design Master
Area 13 - Health and Safety Plan Design Master	Area 14 - Environmental Plan Design Master	Area 15 - Project Schedule Design Master	Area 16 - CAFES Estimation Design Master
Area 17 - O&M and Related Documents Design Master	Area 18 - P&ID Design Master	Area 19 - Drawing List Design Master	Area 20 - CE Report, Phases Part Design Master
Area 21 - Documentation, Phases Part Design Master	Area 22 - P&ID Design Master	Area 23 - Training Program, Phases Part Design Master	Area 24 - O&M Pre-Audit, Phases Part Design Master
Area 25 - Personnel, Phases Part Design Master	Area 26 - Environmental Impact, Phases Part Design Master	Area 27 - Comparison of LVR Contents, Phases Part Design Master	Area 28 - Preliminary Feasibility, Phases Part Design Master
QG Angola IV Sol. Phase CDR Report, RevC, 20171206 Include Aonon Document			





Upcoming Projects

Nigeria IV Solutions Plant

- EPC/Turnkey Cleanrooms, Interior Works, HVAC, Utilities, Electric, BMS/EMS, Furnishing
- 5 BFS Lines

Argentina IV Solutions Plant

- EPC / Turnkey set up of Plant
- 12.000.000 bags/year of 500 ml PP bags, 3 shifts





Buildings

New Parliament Building, Kutaisi, 2014





Buildings

Public Service Hall, Gori, 2012





Buildings

Public Service Hall, Gori, 2011





www.vona-int.com



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