

# 2019 Company Capability Statement

**Min-tec**  
Best Solution, Most Efficiency

Engineering, Consulting, Procurement, Equipment Supply  
& Engineering Management Services



➤ Plant Development

➤ Engineering Consulting

➤ Engineering Design

➤ M.C. Projects

➤ Equipment Supply

## Head Office

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Tel: +98 21 8852 8803, 8852 8092  
Fax: +98 21 8873 5850  
Web: [www.mintecco.com](http://www.mintecco.com)  
E-mail: [info@mintecco.com](mailto:info@mintecco.com)



Alborz Engineering & Industrial group has been shaped in 2010 with MINTEC and KIMA MACHINE ALBORZ to find synergy to develop and promote the group business in Mineral Processing field to prepare a complete and full range services to the local and middle east region market.

We are focused on providing Integrated & Tailored made Solutions to our clients across four main services ; Engineering design Services, Mineral Processing Engineering, Equipment Supply and Specialist Engineering services.

Earlier 2011, this group started to work with the overseas well-known companies to provide Engineering services and equipment supply which is not available in our group. This companies has been selected from Europe, Australia and South Africa and signed the cooperation contract exclusively.

See Our foreign partners in [section 4](#).

## Caspian KANIFARAVAR Co. an Engineering & Consulting Division



# who we are?



**Min-tec**  
Best Solution, Most Efficiency

## MIN-TEC in Brief

Caspian Mineral Processing Engineering Company (under trade name MIN-TEC) established in 2009 by a group of qualified engineers with many years work experiences in copper & iron mine industries of Iran. MIN-TEC objective plans providing engineering, manufacturing and procurement services as an engineering, consultant or Integrated Project Management Solutions.

MIN-TEC stockholders have sufficient experiences in several main projects of Iranian huge mineral processing plants. The most important of them are as following:

1. Sarcheshmeh Copper Complex
2. Sungun Copper Concentrating Complex
3. Miduk Copper Concentrating Complex
4. Chador-Malu Iron Concentrating Complex.
5. GoL-Gohar Iron Concentrating Complex.



# To find Synergy



## Min-Tec a New Horizon of Integrated Services in Mineral Processing Plants

Min-Tec (Caspian Mineral Technology Eng. Co.) joined to ALBORZ MINERAL PROCESSING Group when were established in 2010, to find synergy to develop, promote the group business in Mineral Processing field to prepare a complete and full range services to the local and middle east region market.

Joining to ALBORZ MINERAL PROCESSING Group prepared us the situation to develop our activity range to promote our cooperation with well-known equipment manufacturer from Europe and South Africa to prepare a full range availability to supply equipment which are not producing in the group.

Our partners from Spain, Germany, Italy, Turkey and South Africa help us to supply a first class equipment supply in Mineral processing field.



• Process Engineering

• Plant Design

• Project Management

• Plants Audits

# Our Policy



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## World Class Engineering Services, Best Solution for More Efficiency with Qualified Experts and Engineers

MIN-TEC's plans have been identified in the following priority policies:

- ✓ Right recognize our client requirements.
- ✓ Well-organized engineers and staffs to present best services.
- ✓ Continuous Improvement and development in all levels of MIN-TEC's staffs .
- ✓ Develop of cooperation with well-known companies around the world to share abilities.

We believe to catch the above priority policies, effective cooperation and all engineers and staffs have to act in this manner.

Director Manager is responsible to accede the mentioned goals and right recognize and execute the policies. Also our policies will checked and revised by management commission.



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# Our Services



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## Available Engineering Services of MIN-TEC are as following:

- **Feasibility and Scope Study & Optimization**

The Scoping Study is the first attempt at assessing the business case established by the venture analysis and the basic project parameters such as geological and deposit characterization, mineral resource configuration, head-grade, product quality, production rate, power requirements and water consumption.

- **Conceptual & Basic Design**

The original conceptual plan of the mining operation developed during the Feasibility Study would be extended and include amongst others;

- Design criteria;
- Equipment lists;
- Process description;
- General arrangements and outline drawings

- **Engineering services**

We offer technical advice and engineering solutions adapted to our customers specific applications and requirements

- **On-site start-up service**

We offer start-up service for new or rebuilt jobs on site. Our technicians will witness, advise and help at the start up of the project.



# Engineering Services

## Mineral processing

### > Mineral Processing

- Pre-Feasibility and Feasibility studies of mining & industry projects
- Design & perform of laboratory and pilot plant metallurgical test works
- Selection & sizing of crushing, grinding, flotation & dewatering equipments
- Flow sheet development
- Conceptual Design and Study
- Basic & detail design of copper, iron and Lead-Zinc concentration plant (flotation, leaching, magnetic separation)
- Basic & detail design of industry minerals such as gypsum, limestone, sand, barite and etc
- Project Development
- Project Audits
- Design of performance And Acceptance Test
- Commissioning

- Mineral processing
- Mechanical & Piping Engineering
- Engineering Design
- Project Management





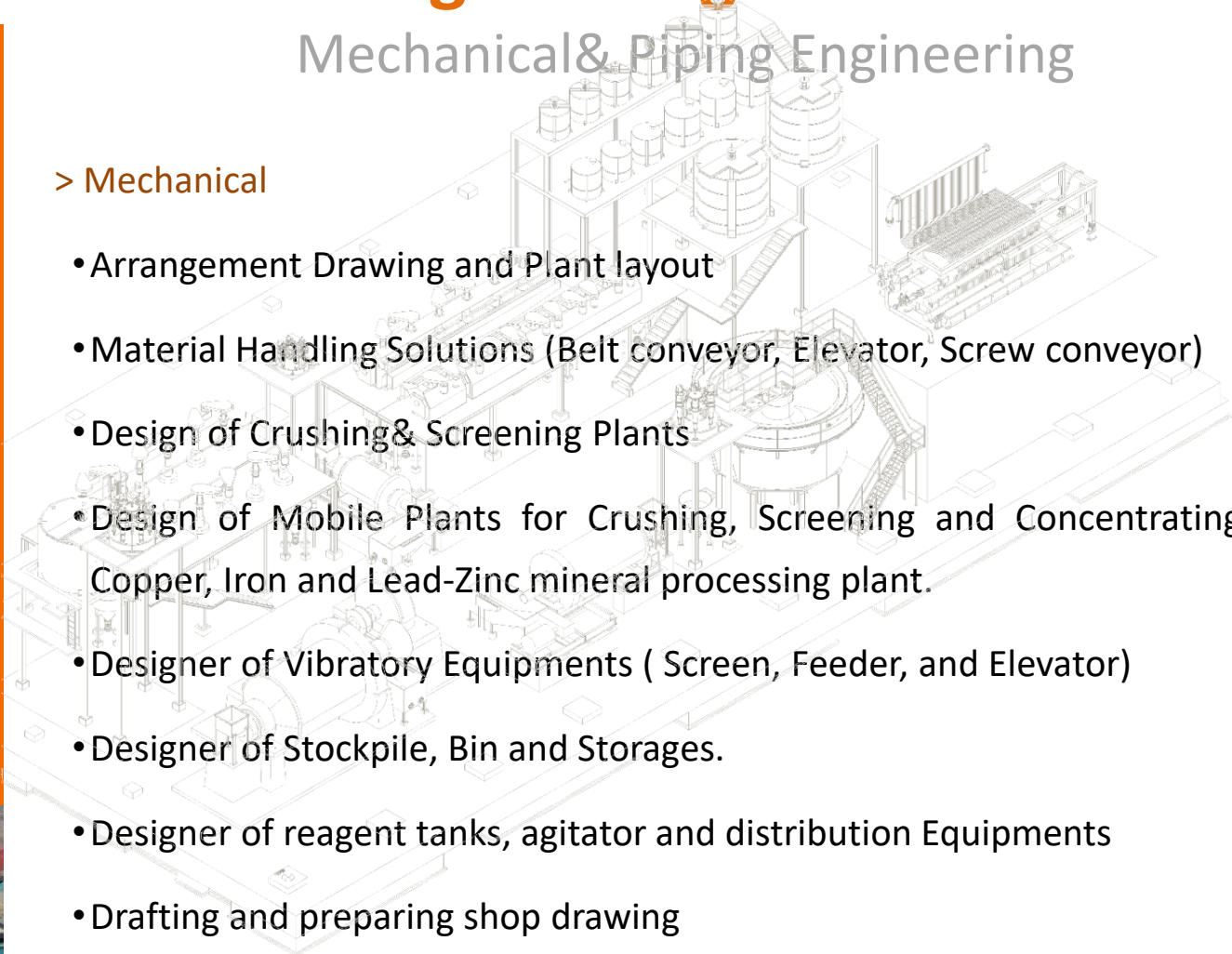
# Engineering Services

## Mechanical & Piping Engineering

- Mineral processing
- **Mechanical & Piping Engineering**
- Engineering Design
- Project Management

### > Mechanical

- Arrangement Drawing and Plant layout
- Material Handling Solutions (Belt conveyor, Elevator, Screw conveyor)
- Design of Crushing & Screening Plants
- Design of Mobile Plants for Crushing, Screening and Concentrating of Copper, Iron and Lead-Zinc mineral processing plant.
- Designer of Vibratory Equipments ( Screen, Feeder, and Elevator)
- Designer of Stockpile, Bin and Storages.
- Designer of reagent tanks, agitator and distribution Equipments
- Drafting and preparing shop drawing



# Engineering Services

## Mechanical & Piping Engineering

- Mineral processing
- **Mechanical & Piping Engineering**
- Engineering Design
- Project Management

### > Piping

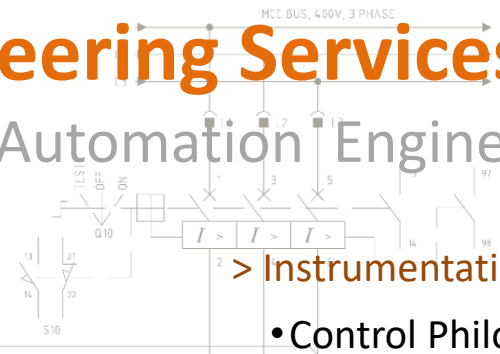
- Piping Lay-out
- Arrangement Drawing
- Isometric Drafting
- Materials selection
- Designing Slurry, Process and potable water pumps



- Mineral processing
- Mechanical & Piping Engineering
- Engineering Design

# Engineering Services

## Electrical & Automation Engineering

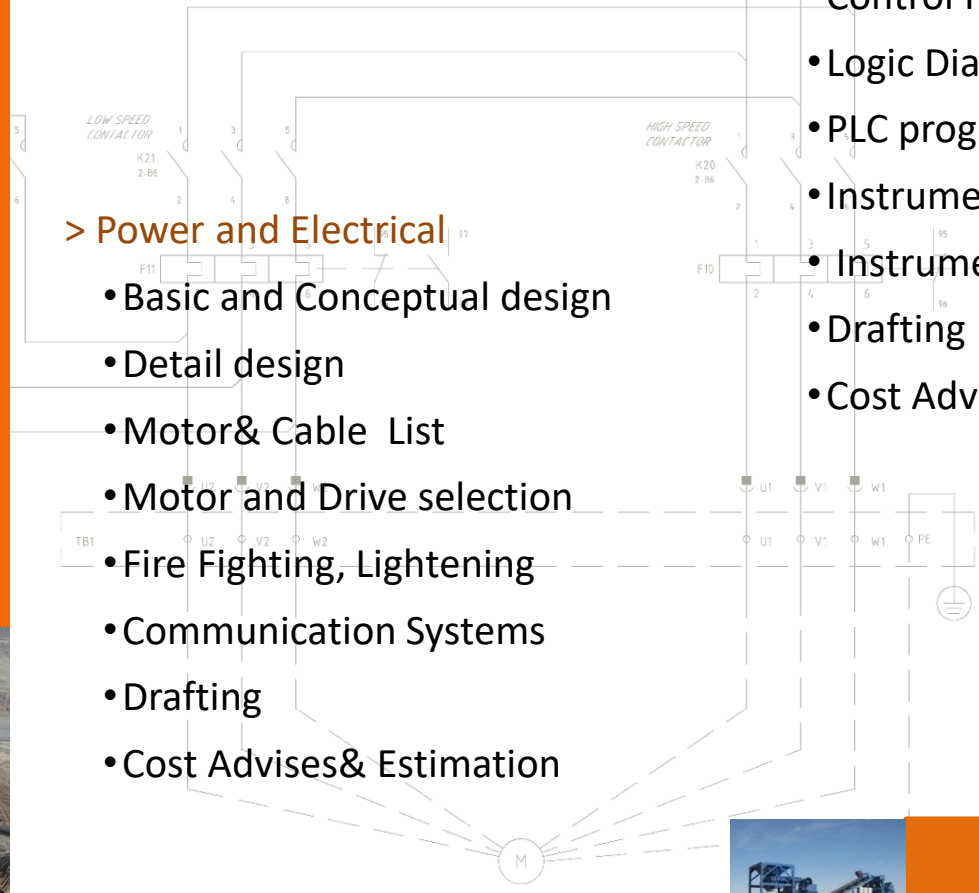


### > Power and Electrical

- Basic and Conceptual design
- Detail design
- Motor & Cable List
- Motor and Drive selection
- Fire Fighting, Lightning
- Communication Systems
- Drafting
- Cost Advises & Estimation

### > Instrumentation and Control

- Control Philosophy
- Logic Diagram
- PLC programming
- Instruments List
- Instrumentation Specification
- Drafting
- Cost Advises & Estimation



1. SEE DRAWING SHEET LEGEND OF SYMBOL

Q10	CONTACT	1-2
	DN	X
	UP	
	TEST	
	TRIP	

REFERENCE

KEY PLAN

Min-tec  
TYPICAL WIRING DIAGRAM FOR LV  
Min-tec  
National Institute of Copper Industry Company



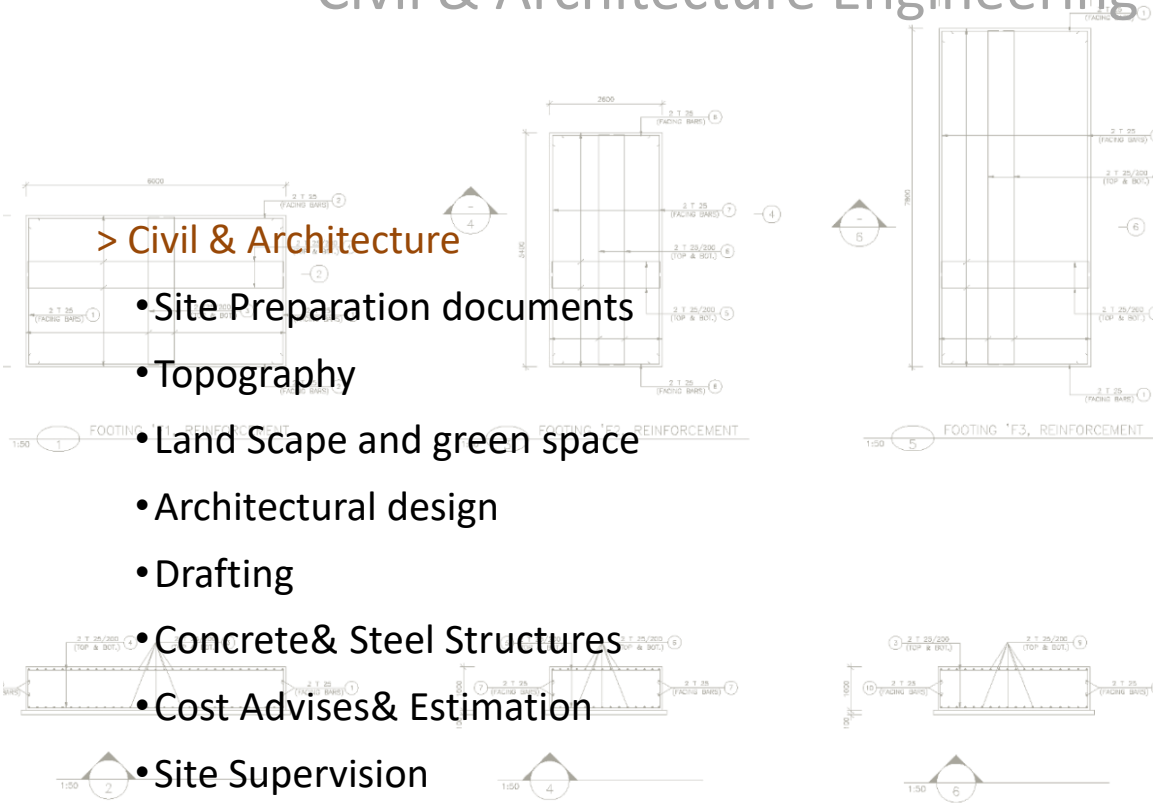
# Engineering Services

## Civil & Architecture Engineering

- Mineral processing
- Mechanical & Piping Engineering
- Engineering Design
- Project Management

### > Civil & Architecture

- Site Preparation documents
- Topography
- Land Landscape and green space
- Architectural design
- Drafting
- Concrete & Steel Structures
- Cost Advises & Estimation
- Site Supervision



Pos	Spec.
1	125
2	125
3	125
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6	125
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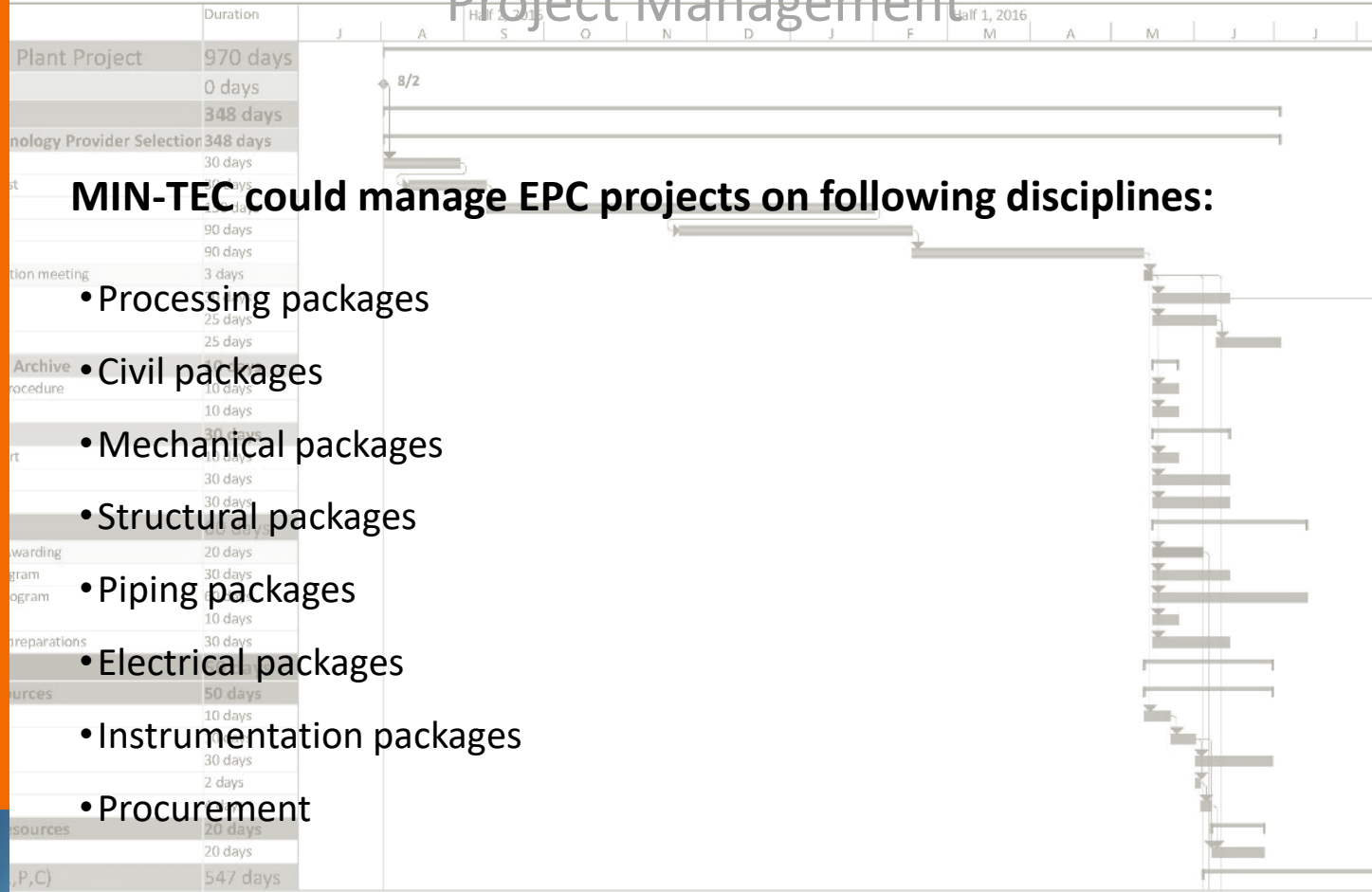
DATE	DESCRIPTION
15/01/2023	Final design

Designer: **Min-tec**  
 Min-tec  
 Min-tec Engineering & Construction  
 Project Manager: **Min-tec**  
 National Inshore Copper Industries Company  
 CONTRACTOR: Construction of SPS-4



## Project Management

- Mineral processing
- Mechanical & Piping Engineering
- Engineering Design
- Project Management



**MIN-TEC could manage EPC projects on following disciplines:**

- Processing packages
- Civil packages
- Mechanical packages
- Structural packages
- Piping packages
- Electrical packages
- Instrumentation packages
- Procurement



# Procurement & Supplying



**Min-tec**  
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MIN-TEC capable to supply a wide range of mineral processing equipments for use in Copper, Iron and Lead-Zinc plants and other metal or non-metal mine industries.

- Grinding equipments: ball & rod mills.
- Classification equipments: special screens, hydro-cyclone, spiral classifier and air classifier.
- Material handling equipment
- Dewatering equipments: thickener & filtration systems.
- Slurry and water pumps.
- Slurry and Control valves
- Steel works such as Chute, Gate, Bin, Hopper and Pump box



# Installation & Commissioning Services



**Min-tec**  
Best Solution, Most Efficiency

MIN-TEC able performing a range of services related to Installation, Pre- Commissioning, Commissioning management for Mineral Processing plants.

- Erection and Installation Supervision
- Mechanical Supervision
- Design and Perform Performance tests
- No-Load Tests for Mechanical Equipments
- Preparation Commissioning, Operation & Maintenance Manual
- Training Programs



•Process Engineering

•Plant Design

• Project Management

•Plants Audits

# Our Experiences



## >Feasibility Studies

Technical and economical studies

1. 25 & 50 t/h copper concentrator plant (flotation)
2. 1000 & 5000 t/year cathode copper (heap leaching) (Iran Itok)
3. 22 million m<sup>2</sup>/annual Plaster Board gypsum plant. (Sepid Gatch co)
4. 300,000 ton/annual Precipitated carbonate calcium (Persian Holding)
5. 150,000 ton/annual lime& hydrated lime plant (Hormozgan Cement Co)
6. 25000 ton/annual Paper stone (Persian holding)
7. 7500 ton/year copper concentrated tank leaching plant
8. 1700 ton/annual copper concentrated tank leaching plant





# Our Experiences



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## > Mineral Processing

1. SARCHESHMEH Copper concentrator project 500 ton /day ore feed (EP):
  - Design & perform of laboratory & pilot plant test works.
  - Basic & detail design of crushing, grinding, flotation & dewatering units.
2. CHIROOK Foundry Sand Co. 150.000 ton/year foundry sand plant.(E)
  - Design & perform of laboratory & pilot plant test works.
  - Basic & detail design of crushing, grinding, Washing, classification & dewatering units.
3. Basic design of Sungun molybdenum plant in cooperation with ITOK IRAN (E)
  - Design review and endorsement.
4. SARCHESHMEH anode furnace expansion plant in cooperation with OUTOTEC. (E)
  - Design review and endorsement.
  - Detail design
  - Procurement supervision
5. SANAT ROY ZANGAN Zinc-Lead Flotation plant 175000 ton/year. (E)
  - Basic & Conceptual Design
  - Detail design



# Our Experiences



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## > Mineral Processing

### 5. GOLGOHAR tailing disposal project 1800 m<sup>3</sup>/hr tailing feed (EPC):

- Basic & detail design of crushing, grinding, flotation & dewatering units.
- Procurement and equipment supply
- Construction , Installation
- Commissioning and operation

### 6. MIDUK copper Complex Flocculant Preparation Plant 280 m<sup>3</sup>/day (EPC)

- Design & perform of laboratory test works.
- Basic & detail design.
- Automation
- Procurement and equipment supply
- Construction , Installation
- Commissioning and operation

### 7. SEPID GATCH SAVEH Plaster Board Plant 22million m<sup>2</sup>/year (EMC)

- Basic & detail design.
- Technology provider selection study
- Procurement and equipment supply Management
- Site Supervision & Installation
- Commissioning and operation



# Benefits of Cooperation with Us



1. Collected experiences of many well-known mineral engineering consultant and general contractor companies of Iran in one company.
2. Well-organized company that result optimum services and costs.
3. Comprising one of the most qualified & experienced engineering team in all disciplines.
4. Capability of wide range of services; Engineering, procurement, manufacturing, installation and commissioning together.
5. Engineered order equipment solutions
6. Special designed equipment to ore dressing and mineral processing



# Our Software



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A wide range of soft-wares are used in MMPE, they take us toward best services and accuracy

## >Mechanical & Piping

- MDT 2009
- Auto Cad
- Solid works 2009
- PDMS
- Nawis works 2009
- Belt analyst 07
- Ansys12
- Pumpdim(for slurry pumps)

## >Civil

- SAP 2011
- SAFE 2011

## >Electrical & Instrumentation

- Pascal
- Delphi
- Network

## >Planning

- PRIMAVERA3
- MS Project

## >Processing

- USIMPACK
- J.K.SimMet



# Our Partners



## MIN-TEC as Exclusive Partner

Refer to MIN-TEC policy we have signed and looked for well-known and available partners to supply equipment. Our partners are in most of mineral processing equipment that non-Iranian companies produce this equipment.



# Cooperation with foreign partners



AES is founded at 2001 with the goal of to become world wide company in development and production of filter press , belt press and related products. AES has been successfully serving the many sectors in Turkey since its inception. Some of these sectors are; Mining, Chemical and Biological Plants, Electrolysis, Galvanizing, Sugar, Marble Production, Porcelain Production, Clay and Kaolin Production and Treatment Systems.



# Cooperation with foreign partners



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Chamber Press Filter



MODEL: FP.1000C.32.16.C.EH.100.OPT.DT.PLC PLATE  
DIMENSION: 1000 mm x 1000 mm  
IMPORTANT SPEC.: Automatic Plate Shifting  
NUMBER OF PLATES: 100 pieces  
APPLICATION: KAOLINE



# Cooperation with foreign partners



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## AES Ltd.

Kurtkoy Sanayi Mahallesi Hiwet Sokak No.19  
Kurtkoy / Pendik / Istanbul / Turkey  
Telephone: 00 90 216 595 0 444  
Fax: 00 90 216 595 0 445  
E-mail: [info@sesanitma.com.tr](mailto:info@sesanitma.com.tr)

## EXCLUSIVE REPRESENTATIVE CERTIFICATE

The present certificate hereby certifies that

KANI-FANAVAR CASPIAN Eng Co. (MIN-TEC) a Private company duly organized and existing under the laws of The Islamic Republic of IRAN

Is Exclusive Representative and is fully authorized to Collect Enquiry, Submit offers, negotiate and sell De-Watering Equipment including Press filter, Belt filter, Thickener and Clarifier of

ARITMA EKIPMANLARI ve SISTEMLERI Ltd. (AES Aritma) a Private company and existing under the laws of The Republic of Turkey

Ertan KARAHAN

Sales Manager ( AES Aritma)





# Cooperation with foreign partners



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The main activity of Cintasa centres in the engineering, production and installation of handling, transport and warehousing element systems. Our wide range of conveyors is based on diverse systems such as: belts, rollers, chains, metal plates, buckets, etc. Moreover, we incorporate distinct auxiliary elements in our installations, which could be: galleries, silos, hoppers, structures, etc.

This specialization in the field of conveyors and in all its variants for more than 35 years has given Cintasa the necessary experience to be able to offer the client the best solution to each requirement.



• Process Engineering

• Plant Design

• Project Management

• Plants Audits

# Cooperation with foreign partners



**Min-tec**  
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Cintasa was founded in 1973, and in 1979 the company was constituted as a PLC. In its beginning the main activity of Cintasa was the production of equipment for handling and transport, the agriculture sector being the most important user of our equipment. The easy adaptation of these equipments for the transport of other materials enabled the leap to other fields such as dry goods. The acquired experience permitted the design of new equipments and the specialization of Cintasa in the production of all types of conveyors for any type of activity.



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# Cooperation with foreign partners



**Min-tec**  
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**CINTASA**

Sociedad Anónima

Vertical Belt Elevator



• Process Engineering

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# Cooperation with foreign partners



**Min-tec**  
Best Solution, Most Efficiency



**CINTASA**

Sociedad Anónima



• Process Engineering

• Plant Design

• Project Management

• Plants Audits

# Cooperation with foreign partners



**Min-tec**  
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MINTEC  
A/A. Mr. Abbas Alibakshi  
Stage 1, No. 18, PourFallah St,  
Larestan St.- Motahari Ave.  
Tehran  
IRAN

su referencia:                      su escrito:                      n/referencia:                      n/escrito                      Fecha:  
27/04/2012

Dear Sirs,

Attached we send the Exclusivity Agreement Contract already signed by our General Manager. We hope a successful future for both companies.

Kind Regards,



Rafael Simón

# Cooperation with foreign partners



**Min-tec**  
Best Solution, Most Efficiency

**PEMO PUMPS**

PEMO, headquartered in a 20000 m<sup>2</sup> factory complex in Vimodrone – Milan, Italy, is world renown for designing and manufacturing customized centrifugal pumps for the most difficult abrasive and/or acid applications.

Since opening our doors in 1947, we have built and shipped over 34,000 pumps.

Each Pemo Pump production phase is followed by an highly specialized staff, equipped with the best technologies to express in the most efficient way its 50 years expertise.



• Process Engineering

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# Cooperation with foreign partners



**Min-tec**  
Best Solution, Most Efficiency

## PEMO PUMPS

### A0/TI and A0/TD SERIES



- Designed for heavy duty slurry and/or acid applications.
- These are end suction pumps with single or double mechanical seals.
- Capacities from 1 to 1500 m<sup>3</sup>/h (5 to 6613 gpm).
- Usually maximum discharge pressure should not exceed 3 bar or 43 psi.



# Cooperation with foreign partners



**Min-tec**  
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## PEMO PUMPS

### AO/AB/DC SERIES (double stage versions)



- Designed for slurries and/or acid applications.
- The AO/AB/DC Series is the perfect solution for filter press feed or slurry transfer.
- When pumping acid liquids, the shaft and the mechanical seal housing can be made of special alloys.
- Maximum particle size is 1 mm, though this is dependent on the specific application.
- Capacities from 5 to 600 m<sup>3</sup>/h (22 to 2,645 gpm).
- Maximum discharge head is 590 ft in the Hardalloy PEMO design.





# Cooperation with foreign partners



**Min-tec**  
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## PEMO PUMPS

### VEC SERIES



- Designed for heavy duty slurry and/or acid applications.
- The VEC Series pumps are custom built to customer specifications.
- The shaft is always supported above the baseplate by two bearings inside the base.
- The pump-motor coupling is an elastic joint or V-belt. The maximum length of the pump under the base can reach 4-5 meters (13-16 ft).
- Using a sleeve bushing as the sealing system, the VEC Series pumps cannot run dry under a certain level.
- Capacities from 5 to 1500 m<sup>3</sup>/h (22 to 6,613 gpm).
- Maximum discharge pressure from 6 to 7 bar (88 to 103 psi).



# Cooperation with foreign partners



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## PEMO PUMPS

### AUS SERIES



- Designed for heavy duty slurry and/or acid applications.
- The AUS Series pumps can run dry since there is no mechanical seal.
- Mechanically speaking these pumps are the same as the VEC series, but the maximum length of the AUS Series pump under the base seldom exceeds 2 meters (7 ft).
- Usually the fluid inlet is above the casing but in some versions it is also near the bottom (double sided impellers).
- The AUS Series pumps can be installed inside or outside tanks.
- They can be used to pump abrasive and/or acid liquids.
- Capacities from 5 to 1500 m<sup>3</sup>/h (22 to 6,613 gpm).



# Cooperation with foreign partners



**Min-tec**  
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**Perissinotto s.p.a.**  
POMPE **PEMO**

PER IL SOLLEVAMENTO DI TORBIDE ACQUE E ABRASIVE  
CENTRIFUGAL PUMPS FOR THE CONVEYANCE OF ACID AND ABRASIVE MIXTURES

UFFICI E STABILIMENTO - OFFICES AND PREMISES:  
VIA PASQUOLI, 17 - 20090 VIGEVANO (MI) - ITALY  
TEL. +39/02.250731 - FAX +39/02.2500371  
WEB SITE: www.pemo.com - E-mail: peris@pemo.com

**PEMO PUMPS**

## EXCLUSIVE REPRESENTATIVE CERTIFICATE

The present certificate hereby certifies that

KANI-FARAVAR CASPIAN Eng Co. (MIN-TEC) in Iran

Is Exclusive Representative and is fully authorized to Collect Enquiry,  
Submit offers, negotiate and sell Slurry, Mining and Chemical Pumps  
and Pumping Solutions of

The Perissinotto S.p.A. Company (PEMO PUMP) Italy

General Director of  
The Perissinotto S.p.A. Pump Industry Co.

**Perissinotto s.p.a.**  
POMPE **PEMO**  
Via Pascoli, 17 - 20090 VIGEVANO (MI) - ITALY

C.C.I.A.A. MILANO N. 417485 - REG. IMP. TRIB. MILANO N. 70869 - CODICE FISCALE E PARTITA IVA 02745780155 - POS. EXP.: MI 105708  
SEDE LEGALE: PIAZZA DELLA REPUBBLICA, 3 - MILANO

# Cooperation with foreign partners



Know-how of an experienced team creating smart solutions

Founded in 1990, CYL KNIFE VALVES is today a well known company with 25 years of experience designing, manufacturing and selling knife gate valves. Thanks to a global network of agents and distributors, CYL products are present in over 50 countries.

Turning our customer's most individualized technical solutions and solving demands for valve applications is our main challenge, being our products and service quality not only a condition but our highest goal. Driven by our passion to fulfill our customers' expectations, our technical and sales department works and cooperates closely with our customers, providing a complete package that covers a project management, engineering, service and logistic; always assuring the highest quality, short lead time and reliable service.

Due to our commitment to continuously improving on technology and competence development combined with a highly enthusiastic, qualified and experienced team, enable us to come up with the widest range of innovative solutions tailored to customer's specific valve and application requirements.



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# Cooperation with foreign partners



**Min-tec**  
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DN1800



• Process Engineering

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# Cooperation with foreign partners



**Min-tec**  
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*To whom it may concern:*

**LRQA**  
Business Assurance  
ISO 9001:2008

**CYL KNIFE VALVES, S.L.**  
POL.IND. IBARLUCE PAB. B1/B2  
20120 HERNANI (GUIPÚZCOA)  
Tel. 943 33 31 30 – Fax: 943 33 28 74  
E-mail: [cyl@cyl.es](mailto:cyl@cyl.es) Web: [www.cyl.es](http://www.cyl.es)

Hernani, 2<sup>nd</sup> of April 2014

## LETTER OF AUTHORIZATION

Dear Sirs,

We, **CYL KNIFE VALVES, S.L.**, appoint company **KANI-FARAVAR CASPIAN Eng. Co (MIN-TEC)** as our exclusive representative and fully authorized to collect enquiries, submit offers and market CYL type *Knife Gate Valves* in Iran.

With the trust that shall enter into a fruitful co-operation and the promise of a prompt service at all times we remain with.

Best regards,



**PEDRO LIZARRAGA URRUTIA**  
MANAGING DIRECTOR

