



BOSNAX (THAILAND) CO.,LTD.

บริษัท บอสแนกซ์ (ประเทศไทย) จำกัด

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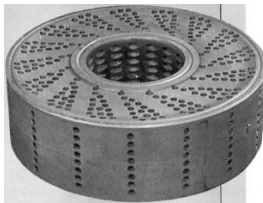
**!!! Optimized solutions for maximizing your profits, we do it !!!**

**Imported products for various industries at [www.bosnax.com](http://www.bosnax.com)**



### Carbone Lorraine (France)

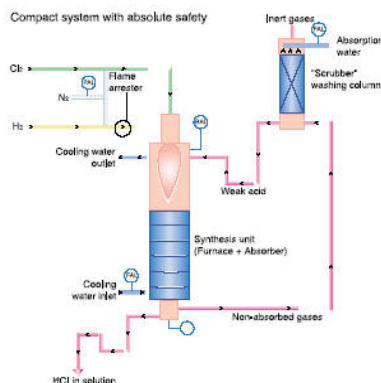
A leading manufacturer of anticorrosion equipment. Offer optimized solutions for industrial progress to resist corrosion and protect the environment, with effective alternatives in wide range of own materials & design.



Block type Heat exchanger



Shell and Tube Heat exchanger



HCl synthesis unit

### Synthesis Unit :

- HCl synthesis unit
- HBr synthesis unit
- Halogen acid synthesis unit

### Products :

#### Heat exchanger :

- Graphite heat exchanger
- POLYBLOC - block type
- POLYTUBE - shell and tube type
- CUBIC - exchanger without joint
- Graphite Gas/Gas heat exchanger
- Silicon Carbide heat exchanger

#### Absorption :

- Cooled absorber
- Falling film absorber

#### Evaporation-Condensation :

- Falling Film Evaporator
- Nitric acid Condenser
- Pharmaceutical Condenser
- Flue gas condenser



Graphite Centrifugal Pump  
(Horizontal type, Vertical type, Immersed type)

### Transfer, Handling & Storage :

- Graphite Centrifugal Pump
- Graphite Vessel
- Graphite Tube

### Materials :

**GRAPHILOR 3** Impregnated Graphite with ultra-fine grain

- BS & XBS : Phenolic Impregnation
- XC : Carbon Impregnation
- XTH : PTFE (Teflon) Impregnation
- K & P : for Fine Chemical, Pharmaceutical
- R : Reinforced Graphilor 3

**ARMYLOR** Steel Reinforced PTFE (Teflon)

- G : Std. Thickness for Standard Pressure Condition
- S : for Complete Vacuum
- C : for Partial Vacuum
- D : for Requiring Reinforced Thickness



Teflon lined Piping, Vessel, Column



Graphite Rupture Disc

Safety สำหรับระบบที่รับความดัน เช่น ระบบท่อที่รับแรงดันสูง ถึงความดัน boiler ฯลฯ

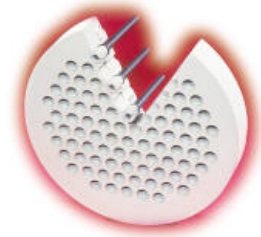
โดยจะออกแบบให้ Rupture Disc ระเบิดเมื่อความดันของระบบสูงกว่าปกติ เพื่อป้องกันระบบใหญ่ระเบิด (เปรียบเสมือนฟิวส์ในระบบไฟฟ้า)

Gouging Electrode  
(Copper coated Electrographite)**Electrode :**

- Gouging Electrode
- Welding Electrode
- Cutting Electrode
- Under Water Oxycutting Electrode

**Other :**

- Hexoloy - Silicon carbide (SiC)
- Brick lined steel
- Glass lined steel



Silicon Carbide heat exchanger

**AstroCosmos (Carbone Lorraine Group – USA.)****Materials :****Noble Material & Reactive Metal :**

- Ti : Titanium
- Ta : Tantalum
- Zr : Zirconium
- Nb : Niobium
- Ha : Hastelloy
- Ni : Nickel Alloy

**Cladded Materials :**

- Zr cladded Steel & Stainless Steel
- Ta cladded Steel & Stainless Steel
- Ti cladded Steel & Stainless Steel

**Products :****Transfer, Handling & Storage :**

- Metallic Piping system
- Metallic Vessel
- Metallic Valve

**Products :**

Metallic column section



Zr or Ta or Ti - clad Reactor

**Heat exchanger (Ta, Zr, Ti, Nb, Ni) :**

- Metallic shell and tube type
- Metallic coil type
- Metallic immersed type
- Metallic bayonet type
- Metallic Immersion Coil



96" Titanium fan wheel

**Reactor & Column :**

- Metallic Distillation Column
- Metallic Absorption Column
- Metallic Reactor
- Zr or Ta or Ti - clad Reactor

**Made to Order - Products**

## CL- CLAD (Carbone Lorraine Group - France)

The new reliable cladding technology, Brazing process patented by **CARBONE LORRAINE**

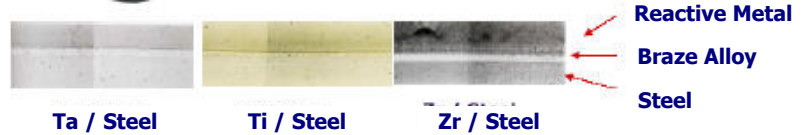
- Need thinner base plates and clad material than Explosion Clad.
- Resistant to full vacuum. With the same vacuum and flexion resistance as Explosion Clad.
- >>>> Less Expensive Solution in Same Quality as Explosion Clad.

### Clad material :

- Tantalum (Ta)
- Titanium (Ti)
- Zirconium (Zr)

### Base Plate material :

- Carbon Steel
- Stainless Steel



### Products :

- Reactor
- Vessel
- Column
- Tank
- etc.



### Advantages of CL-Clad compared to glass lining :

- Glass-lined equipment
  - Very fragile, less resistant against thermal shock
    - Regular maintenance required
    - Potential safety concerns
    - Low heat-up and cool down ==> long process cycles
    - Requirement for many clamps to close the reactor and ensure the tightness
  - Low thermal conductivity
    - Low Heat transfer
    - Less precise control of the reaction temperature

## Kapp France (Carbone Lorraine Group - France)

### The Heat Exchanger Specialist

### Materials :

- Stainless Steel (SS304L, SS316L)
- SUPER AUSTENITIC SS (SS904L-254SMO)
- Duplex (URANUS 45N)
- Nickel Alloy (Hastelloy C2000, C276, C22)
- Glass Shell
- Carbon Steel Frame

### Products :

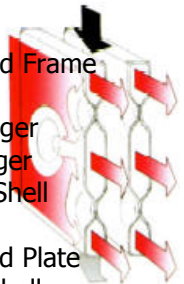


Spiral heat exchanger

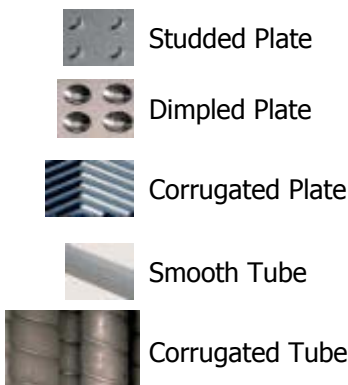


### Type of Heat Exchanger :

- Gasketed Plate
- Gasketed Plate and Frame
- Welded Plate
- Spiral Heat Exchanger
- Tube Heat Exchanger
- Welded Plate and Shell
- Shell and Tube
- Shell and Embossed Plate
- Ribbed Plate and Shell
- Condensation
- Decantation Tower
- Vacuum Skid
- Temperature Control Unit (TCU's)



### Type of heat-transfer surface :



Studded welded plate



Dimpled welded plate and shell heat exchanger

### Type of frame :



- CUBIC / Parallelepipedic (Parallel rectangular section) for low and media pressure
- Cylindrical shell (Circular section) for high pressure



## Ferraz Shawmut (Carbone Lorraine Group - France)

### High Power Switch & Switchgear

**DC : 500 - 36,000 Volts @ 3,200 - 300,000 Amp.**

**AC : 1,000 - 36,000 Volts @ 4,000 - 60,000 Amp.**

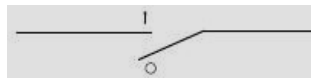
For : power plants, steel mills, cement plants, chemical, petrochemical, refinery, fertilizers, train/transit stations and any facility that have high power usage and requires high power switches.

### Products :

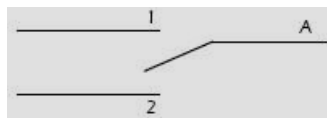
#### Made to order DC and AC switches such as :

- rectifier output disconnect switches
- change-over disconnect switches
- change-over grounding disconnect switches
- polarity-reversing disconnect switches
- distribution panel disconnect switches
- low-voltage disconnect switches
- medium-voltage disconnect switches
- grounding switches
- mobile and stationary shorting switches
- Pure silver-to-silver contacts for the best connection
- a visible disconnect that eliminates guesswork and increases safety
- Self-cleaning contacts for minimal maintenance
- Aluminum or copper, bolted or welded connections
- Various methods of operation - manual, electric or pneumatic
- Mechanical or electrical open-switch locks
- Multiple contacts, with spring-loaded arc-quenching chambers independent from the main contacts
- Outdoor enclosures resistant to corrosive environments

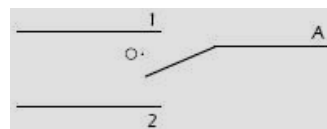
### Operating Types :



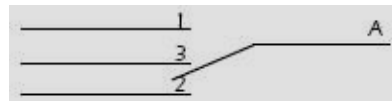
Disconnectors (1-0)



2 position change-over disconnectors (1-2)



3 position change-over disconnectors (1-0-2)



3 position change-over disconnectors (1-3-2)



Contact position micro switch with common point

Contact position micro switch without common point



### Operations :

- Motorized
- Manual
- Pneumatic

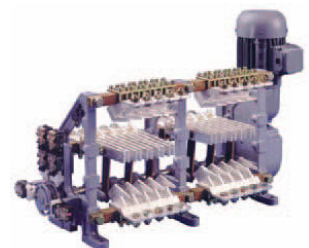
### Some Models :



Change-over disconnect switch 3-pole



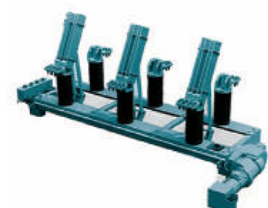
Disconnect Switches single pole



Change-over disconnect switches 2-pole Pos 1-0-2

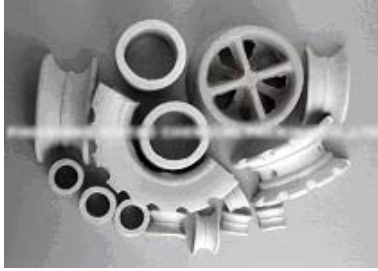


DC load-break switches



Medium Voltage Disconnectors

## Random Packing (China, European on request)



### Ceramic Random Packing

- Ceramic Saddle for chemical and petrochemical
- Ceramic saddle for RTO's
- Ceramic Super Saddle
- Ceramic Raschig Ring
- Ceramic Cross-Partition Ring
- Ceramic Pall Ring
- Ceramic Cascade-Mini Ring

### Metal Random Packing

- Metal Raschig Ring (MCR)
- Metal Pall Ring (CMP)
- Metal Saddle (CMS or Intalox Tower Packing)
- Metal Inner Arc Ring (CMV or Metal VSP)
- Metal Cascade - Mini Ring (CMR)
- Metal Nutter Ring (CMN)



### Plastic Random Packing

(PE, PP, RPP, PVC, CPVC, PVDF)

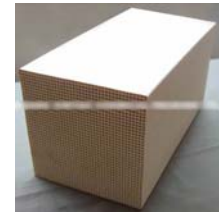
- Plastic Pall Ring
- Plastic Rosette Ring
- Plastic Heilex Ring
- Conjugate Ring
- Cascade Mini Ring
- Polyhedral Hollow Ball Packing
- Hollow Floatation Ball Packing



### Ceramic Structured Packing

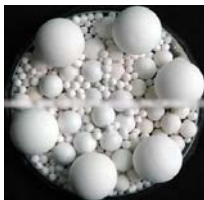


### Metal wire gauze packing (Sulzer gauze packing)



### Ceramic honeycomb Monolith

- Porous Cordierite
- Compact Cordierite
- Porcelain



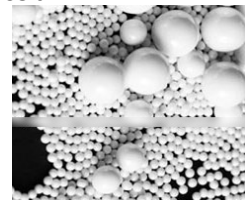
### Alumina Ceramic Balls

- Common Ball
- Inert Ball
- Pure-Alumina Ball



### Ceramic Precision Ball

- Alumina Oxide
- Zirconia
- Silicon Nitride



### Alumina Grinding Balls

## Catalyst (absorbing material)



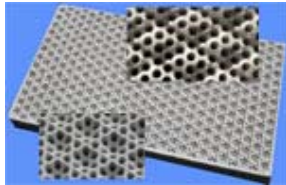
### Molecular sieve

(3A, 4A, 5A, 13X, IG Desiccant, 13XACS)



### Activated Alumina

## Other Ceramic Products



### Infrared Ceramic Tile

cordierite based ceramic heating element, gas radiant heater, burning without flame, save 30-50% energy cost.

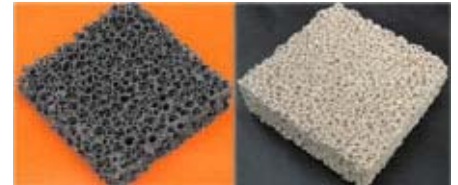
**Application :** Pizza Ovens, Deep Fat Fryers, Evaporator, Pressure Fryers, Gas Ovens, Convection Ovens, etc.



### Artificial Pumice Stone

light weight, 20-30 times more abrasive.

**Application :** garment making process, remove corn, hard skin, wash your pet, fix nail, wash toilet, etc.



### Ceramic Foam Filter

filtering impurities from liquid metal

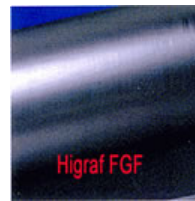
- Ceramic Alumina Foam Filter (for aluminum and aluminium alloy)
- Ceramic Zirconia Foam Filter (for stainless steel and nickel alloy)
- Ceramic Silicon Carbide Foam Filter (for grey iron, ductile iron, precious metals, copper, bronze, brass and investment casting)

## Gasket, Seal and other materials (China)



### Gland Packings

( Carbon Fiber , Asbestos , Inconel Wire , Brass wire , Cotton , Aramid Fiber , Kevlar Fiber , PTFE , Sintered PTFE , Nomex Fiber , Polyimide Fiber , Graphite Fiber , GFO Fiber , Ramie Fiber , Pan Fiber , Fiberglass Rope , Ceramic Fiber , stainless steel , mesh wire )



### Gasket Sheets

( Graphite , Mica , Paper , Asbestos rubber , Oil resistance , Acid resistance , Cork Rubber , Virgin PTFE , Rubber , exhaust gasket )



### Static Gaskets

( Spiral wound gasket , O-ring Gasket , Corrugated Metal Gasket , Cylinder Head Gasket , Graphite sheet , PTFE , metal , Rubber )



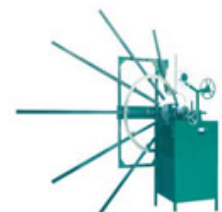
### Yarn, Tape, Cloth, Rope, Rod, Tube

( Graphite , Carbon Fiber , Asbestos , brass wire , Glass Fiber , Ceramic Fiber , mesh tape , Teflon ( PTFE ) , Loaded Lip Seals )



### Mechanical Seals

( Silicone Carbide , Carbon-Graphite , Tungsten Nickel , Carbon Ring , Carbon Pipe )



### Sealing Machine, Packing Tool

## Other Products

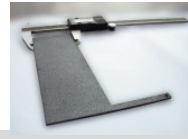
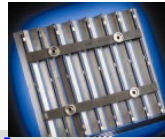
If you are looking for anything, don't worry to let us know, we will do our best to find it for you.

### Some other products :

## Electrolysis Unit & Component (Anode & Cathode)

เครื่องแยกสารจากของเหลว เช่น น้ำเกลือ, น้ำทะเล ด้วยขั้วไฟฟ้า

- Electrochlorinator
- Electro Chlorination Skid
- Electrolyser System
- Sea water, salt brine electrolyzer
- Cooling water electrochlorinator



### To produce :

- Chlorine
- Caustic Soda (NaOH - Sodium Hydroxide, โซดาไฟ)
- Hypochlorite
- Hydrogen
- Sodium hypochlorite
- etc.

## Maintenance of Electrolysis Unit (Anode & Cathode re-coating & maintenance)



Anode recoating



Resistance welding of cathode mesh

## Static Mixer or Motionless Mixer or In-line Mixer

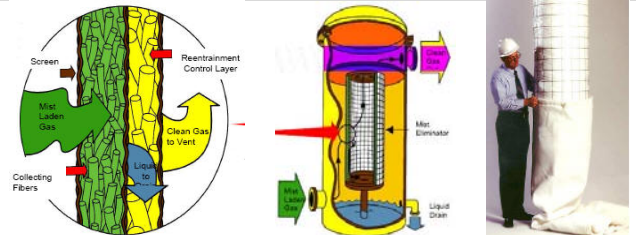
สำหรับผสมของเหลว 2 ชนิดขึ้นไป โดยไม่ต้องมีชิ้นส่วนเคลื่อนที่ เช่น มอเตอร์ หรือ ใบกวน จึงประหยัดพลังงานได้มาก



- economical solution for mixing tasks
- low operating cost
- maintenance free
- easy installation

## Mist Eliminator (Candle Filter)

สำหรับดักความชื้น, หยดน้ำ จากแก๊ส ทำด้วยวัสดุที่ทนการกัดกร่อน จึงใช้กับแก๊สที่เป็นกรด เช่น ไอกรดซัลฟูริก, คลอรีน ได้



## Demister Mesh (Pad Filter)



สำหรับดักความชื้น, หยดน้ำ จากแก๊สที่ออกจาก Absorber, Scrubber, Tower, Column, drying tower

## Stainless Steel, Duplex Steel, Nickel Alloy, Hastelloy, Noble Materials, Titanium, Aluminium, etc.

: Plate, Sheet, Rod, Tube, Pipe & Piping System



- Plate, Sheet
- Rod
- Hollow bar, Flat, Hexagon, Angle, Wire, Wire Rod, Reinforcement bar
- Forged or rolled Round and Square bar / billet
- Elbow, Coupling, Tee, Cap, Nipple, Etc.



## Valve (ball, check, gate, Needle, globe)



### Material :

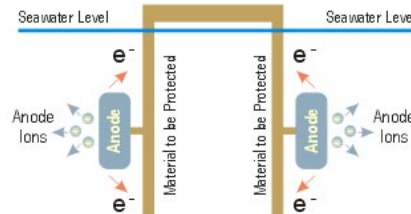
- ASTM A351 Gr. CN7M (**Alloy 20**)
- ASTM A494- CW-12MW (**Hastelloy C**)
- ASTM A890 – 5A CE3MN (**Duplex Alloy**)
- ASTM B367 Gr.5 (**Titanium Alloy**)



## CATHODIC PROTECTION (CP) ANODE (ระบบป้องกันสนิมโลหะ โดยวิธีไม่ใช้กระแสไฟฟ้าช่วย)

### Applications :

- Steel structures in seawater
- Steel structures in fresh water
- Steel construction in seawater and saline mud (ดินเลนน้ำเค็ม)
- For ship hull, vessel, boat
- For ballast tank (ถังน้ำในท้องเรือ สำหรับถ่วงเรือ), storage tank
- For Oil Tank
- For Sea port and offshore structure
- Pipe line in sea water



### Types :

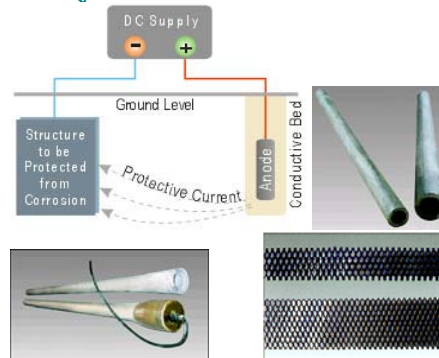
- Magnesium anode
  - Mg High Potential Anode
  - H-1 ALLOY Mg Anode
  - Pre-packaged Mg Anode
  - Cast Rod Anode-AZ63 Alloy
  - Mg/AL Extruded Rod
  - Extruded ribbon anode
- Aluminum anode
- Zinc anode
  - Zinc Ribbon Anode

## Impressed Current Cathodic Protection System (ICCP) or Dimensionally Stable (DSA) or Insoluble Anodes (ไม่ละลาย)

ระบบป้องกันสนิมโลหะ โดยใช้ไฟฟ้ากระแสตรงจากแหล่งกำเนิดภายนอก จ่ายอิเล็กตรอนแก่สิ่งแวดล้อมแทนตัวโครงสร้างโลหะ โดยที่ขั้ว Anode จะคงรูป ไม่ละลายตัวไปเหมือนระบบ CP จึงใช้งานได้ยาวนานกว่ามาก (หลายปี)

### Applications :

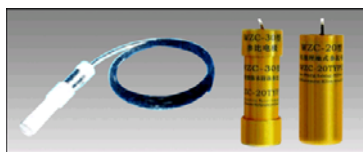
- For reinforced concrete structures
- For underground steel structures
- For structures in sea water
- For structures in fresh water
- For offshore structures (ชายฝั่ง)
- For underground pipelines
- For buried cable (เคเบิลใต้ดิน)
- and so on



### Types :

- Ti-Mixed Metal Oxide Anode (MMO)
  - MMO solid rod
  - MMO tube anode
  - MMO tubular Anode String
  - Mixed Metal Oxide Ribbon Anodes
  - MMO mesh ribbon anode
- Graphite Anode
- High Silicon Cast Iron Anode
  - Rod Anode
  - Si-Fe Tube Anode

## Other CP & ICCP Materials



### Reference Electrode

(ใช้วัดประสิทธิภาพการทำงานของ Anode ทั้ง CP & ICCP)

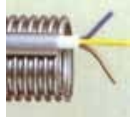
### Rectifiers

(ระบบจ่ายไฟกระแสตรงสำหรับ ICCP)

**VACUFLEX GmbH (Germany)****Flexible Hose / Duct / Tube & Coupling**

## Transported media / fluid :

- air, gas, vapor and dust
- liquid
- solid
- protective hose



## Product categories :

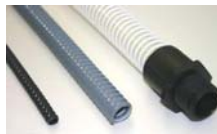
- **Hose with steel-wire reinforcement**

**hose** : PVC, PU, PE, electro conductive PE, EPDM/PP, Ester based TPU (Thermoplastic Polyurethane), Ether based TPU, neoprene coated glass fibre fabric, silicone coated glass fibre fabric, Coated fabrics as e.g. Silicone, Kevlar, Hypalon or Teflon, flame retardant, microbe and hydrolysis resistant, Extendable hose  
**reinforcement** : steel wire, copper coated steel wire



## Fields of application / industry :

- medical industry
- automotive industry
- domestic and electrical appliance
- machinery and equipment
- air conditioning appliance
- sanitary industry
- special medical and dental equipment
- material handling
- material dryer
- food and beverage industry
- ceramic & glass industry
- plastic processing industry
- textile industry
- paper industry
- cable protection
- dust extraction



- **Hose with rigid-PVC reinforcement**

**reinforcement** : helix on the outside, welded on the inside, embedded into wall



- **Profile hose**

inside very smooth, crush proof full plastic hose, made of EVA, antistatic EVA, electro conductive material, heat stabilized TPE



- **Screw-type coupling**

one side with thread for hose (additional bonding, glued or sealing also possible) other side conical or cylindrical



- **Moulded coupling**

moulded with positive fit directly onto the end of the hose using a special moulding process

..... **And More** .....

นอกจากนี้เรายังมีสินค้าอื่นๆ อีกหลากหลายชนิด  
กรุณาสอบถามรายละเอียดจากฝ่ายขายของเรา

We have many more products, please ask our sales person.

Thank you very much.



## About us :

Bosnax (Thailand) co.,Ltd. is a trading company. We offer Optimized Imported Products from various countries to serve wide range of industries. The "Optimized Imported Products" does not always mean the "first class products" but it means "the most suitable products".

Of course, for the critical parts or the parts that should be the best quality we proud to offer our customers the best one like Carbone Lorraine's (for example). But for some parts that not have to use high technology in production lines, we have alternative products to save our customers' production cost in the same (or almost same) quality as European's.

And also, if you are looking for anything don't be shown in our lists, don't worry to let us know, we will do our best to find it for you.

Best Regards,

Bosnax (Thailand) co.,Ltd.  
[www.bosnax.com](http://www.bosnax.com)

## Customer Reference :

- THASCO Chemical Co.,Ltd.  
บริษัท ไทยอาซาฮีเคมีภัณฑ์ จำกัด
- AGC Chemicals (Thailand) Co.,Ltd.
- PTT Chemical Public Co.,Ltd.
- Thai Fermentation Industry Co.,Ltd.  
บริษัท ราชชาซูรส จำกัด
- Siam PVS Chemicals Co.,Ltd.  
บริษัท สยาม พีวีเอส เคมีคอลส์ จำกัด
- Sahaviriya Steel Industries Public Co.,Ltd.  
บริษัท สหวิริยาสตีลอินดัสตรี จำกัด (มหาชน)
- Vinythai Public Company Limited  
บริษัท วินิไทย จำกัด (มหาชน)
- Thai Plastic And Chemicals Public Co.,Ltd.
- Aditya Birla Chemicals (Thailand) Ltd.
- Indorama Chemicals (Thailand) Ltd.
- Glow SPP3 Co.,Ltd. - Power Plant
- South Bangkok Power Plant
- Power Generation Services Co.,Ltd.
- Roi-Et Green Power Plant  
(EGCO Engineering and Service Co., Ltd.)
- Operational Energy Group Limited  
(for Sahacogen (Chonburi) Public Co.,Ltd. - Power Plant)
- Sime O & M (Thailand) Co., Ltd. - Power Plant
- Padaeng Industry Public Co.,Ltd.
- H.C. Strack Co.,Ltd.
- TUNTEX (Thailand) Public Co.,Ltd.  
บริษัท ทุนเท็กซ์ (ประเทศไทย) จำกัด (มหาชน)
- VICCHI Consolidated Co.,Ltd.  
บริษัท วิคกี้ กรุ๊ป จำกัด
- GRUNDFOS (Thailand) Ltd.  
บริษัท กรุนด์ฟอส (ประเทศไทย) จำกัด
- Bangkok Cable Co.,Ltd.
- Sumisho Noble (Thailand) Co., Ltd.
- Suntai Chemicals Co.,Ltd.
- SUS (Thailand) Co., Ltd.
- CTCI (Thailand) Co.,Ltd.
- Ultimate Technology & Services Co.,Ltd.
- Momentive Performance Materials (Thailand) Ltd.
- Man Sruang Engineering Co.,Ltd.  
บริษัท แมนสรวง วิศวกรรม จำกัด
- Gencon Engineering Co.,Ltd.
- Group Seven Engineering Co.,Ltd.
- SIT Engineering Co.,Ltd.
- National Metal and Materials Technology Center (MTEC)  
ศูนย์เทคโนโลยีโลหะและวัสดุแห่งชาติ
- สถานวิจัยและพัฒนาพลังงานทดแทนจากน้ำมันปาล์มและพืชน้ำมัน  
คณะวิศวกรรมศาสตร์ มหาวิทยาลัยสงขลานครินทร์
- Roi-ed-Thonburi Hospital
- Plant Equipment Co.,Ltd.  
บริษัท แพลนท์ อีควิปเมนท์ จำกัด
- Alternative Energy International (Thailand) Co.,Ltd.
- Enera Co.,Ltd.
- Peace Engineering Co.,Ltd.  
บริษัท พีช เอ็นจิเนียริง จำกัด
- Cognis Thai Ltd.
- NEPSS (Thailand) Co.,Ltd.
- Firewire (Thailand) Co.,Ltd.
- Ansales (Thailand) Co.,Ltd.
- Siam Nathan International Co.,Ltd.
- Advance Thermo Solution Co.,Ltd.
- ID MART Co.,Ltd. (Branch Rangsit)
- T.C. Sealing & Pumping co.,Ltd.
- Thunyarat Supply, Lampang.
- Wisdom Asia Co.,Ltd.
- S.Pornsri (Trading), Bang Khae, Bangkok.
- Puchanit Trading Limited Partnership
- Origin Trade Price Limited Partnership  
ห้างหุ้นส่วนจำกัด ออริจิน เทรด ไพร์ซ
- ..... etc. ....