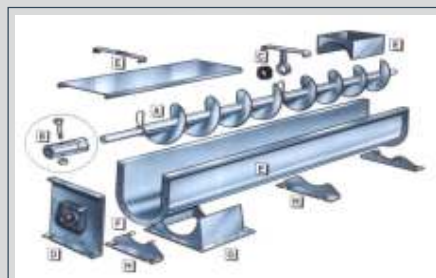
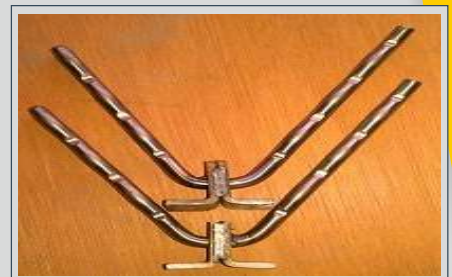




# UniTech

Filtration & Engineering FZ LLC.





## COMPANY

### Introduction

UNITECH ENGINEERING DIVISION was founded to produce parts of CEMENT, SUGAR, CHEMICAL, FERTILIZER & CONSTRUCTION INDUSTRIES. Endless efforts have been put in together to improve quality of the products by increasing and improving technology, production capacity.

Some of our International Partners are also with us in the field of Fabrication, Casting and Machining. Product range in casting and melting area are Stainless Steel SS18/08,26/12,26/20 , Manganese Steel ,Hi-Chrome Grinding Media and Plates, Alloys Steel ,Brass , Cast iron , Gray Iron and all other type of Steels, idler Roller, bucket and all type of Chains.

At UNITECH ENGINEERING DIVISION quality improvement is a continuous process. Our products confirm to international standards and specifications. It is very heartening that most of the major producers of Cement, Sugar and Fertilizers are regular users of our products. This has been possible through understanding customer requirements, and meeting them in most optimum manner. We remain focused to make UNITECH" a company that commands respect for its quality and on time delivery, and we established our Foundry In DAMMAM Saudi Arabia in 2011.



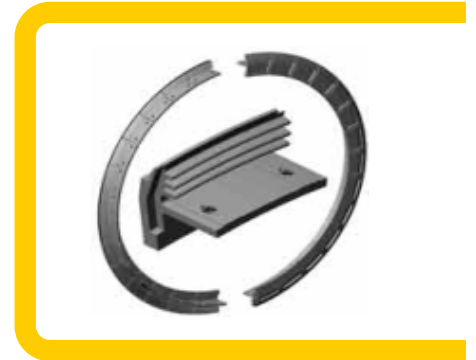


## Unitech Kiln Parts

### Custom Made UniTech Nose and Tail Ring Segments:

UniTech Nose and Tail Ring segments are available as direct replacement parts or in custom configurations with refractory cavities and overlap design.

They are typically supplied in alloy S4 for extreme duty.



### Two-Piece Kiln Feed Shelf: Two-Step Maintenance

#### UniTech Proprietary Alloys for Different Applications

Replaceable cast S4 alloy tip combined with a high chrome nickel alloy steel for the hot zone. Replace half only. Significant savings in initial purchase cost.

#### Decreased Maintenance Costs

50% less downtime. Much lower installation cost in the long run. Significant savings in refractory.

#### Increased Wear Life

200% more material on shelf tip edge.



### Blaster Nozzles: Reliable

UniTech Blaster Nozzles are available in a variety of sizes at extremely competitive prices. Cast from high-temperature stainless steel, UniTech blaster nozzles offer OEM quality and reliability at a fraction of the OEM price.





## Unitech Lining Plates

**OFFERING A FULL LINE OF PARTS FOR ROD, BALL AND SEMI-AUTOGENOUS GRINDING MILLS**

### Shell Liners:

We offer many choices in design and alloys for all popular mills, ranging from traditional wave styles to step liners, classifying liners and SAG mill liners.

### Trunnion Liners.

Not many foundries are capable of making trunnion liners. Columbia Steel is well suited for producing trunnion liners of any size and accurately machining them in our 70,000 square foot machine shop. End Liners and Grates. We design and produce end liners for long, trouble-free service life. Our grates are made of our special H79 high-strength steel which is tougher and harder than commonly used chrome-moly steels. Our grates made of H79 experience very little slot peening so mill throughput is not compromised.

### Proven high volume vendor.

Columbia Steel can provide all the castings required for a complete grinding mill reline. All of our parts are guaranteed for proper fit, performance and customer satisfaction. We have over seven decades of experience producing replacement parts for grinding mills.

### Engineering design consultation:

Our product engineers are available to help you optimize the wear life of your grinding mills. As new designs are developed, our in-house pattern department translates them into accurate patterns.

### Alloy selection:

We produce parts with just the right levels of hardness and toughness for your application, choosing from our high chromium alloy irons, chromium molybdenum steels, high-strength martensitic steels or austenitic manganese steels.





# Unitech

## CRUSHER PLATES & HAMMERS

### A FULL LINE OF PARTS FOR ROD, BALL & SEMI-AUTOGENOUS GRINDING MILLS

#### Shell Liners:

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# Unitech

## SCREW CONVEYOR

The common name of screw conveyor is screw, it is a conveying equipment widely used in grain & oil, feed, food, metallurgy, mine, plastic, chemical engineering, building material, medicine industries, it is suitable for the conveying of granular or powder material, including horizontal, inclined and vertical conveying, etc. The conveying length is 2 meters to 70 meters. The specifications have 120 to 600 kinds. The materials are carbon steel and stainless steel, etc. The special specification will be ordered as requested.





Unitech

ANCHORS

We Offer a very large range of anchors designed to give a good behavior to refractory linings. We have all the possible designs which are used in the industry. They hold the refractory lining on the shell of industrial furnaces. The refractory anchors here below are produced in nickel chromium steel alloy. Their waved "V" shapes are designed in order to insure the best anchoring of the cast able lining when this one has dimensional variations due to ambient temperature evolution and mechanical stress as well. Several types are available in respect of their way of fixing and if they anchor their single layer or a multi layer lining.

UNITECH ENGINEERING is a premier supplier of refractory anchors. Whether you are looking for a common steer-horn V-anchor, threaded studs, wall support plates, ceramic refractory anchor assembly, or custom-designed refractory anchors, UNITECH ENGINEERING can assist you in choosing the correct anchor for your unique refractory installation. We understand that having your anchors delivered on time is of utmost importance on refractory installation jobs. Quick response is our "norm". We are able to provide large quantities of refractory anchors in a short period of time.

Refractory Anchor Design.

UNITECH ENGINEERING can also assist you with anchoring design. If you're not sure about which type of anchor would be most suitable, or have questions about temperatures, alloys, anchor spacing or other design criteria, we can help guide you.

Proven high volume vendor.

Columbia Steel can provide all the castings required for a complete grinding mill reline. All of our parts are guaranteed for proper fit, performance and customer satisfaction. We have over seven decades of experience producing replacement parts for grinding mills.

Plibrico Refractory Anchors:

We also provide Plibrico ceramic anchor assemblies, wall support plates, beam clips, and other specialty anchors and fixtures for monolithic refractories.

Rotalock Refractory Anchor System:

Our unique Rotalock Anchor is a two part V-anchor with a welded base and a V-anchor that is inserted and set into position later, just before installation of the refractory. This system can be extremely valuable for two-component linings, or where safety issues are a concern, walking and working around previously installed V-anchors, such as in rotary kilns.



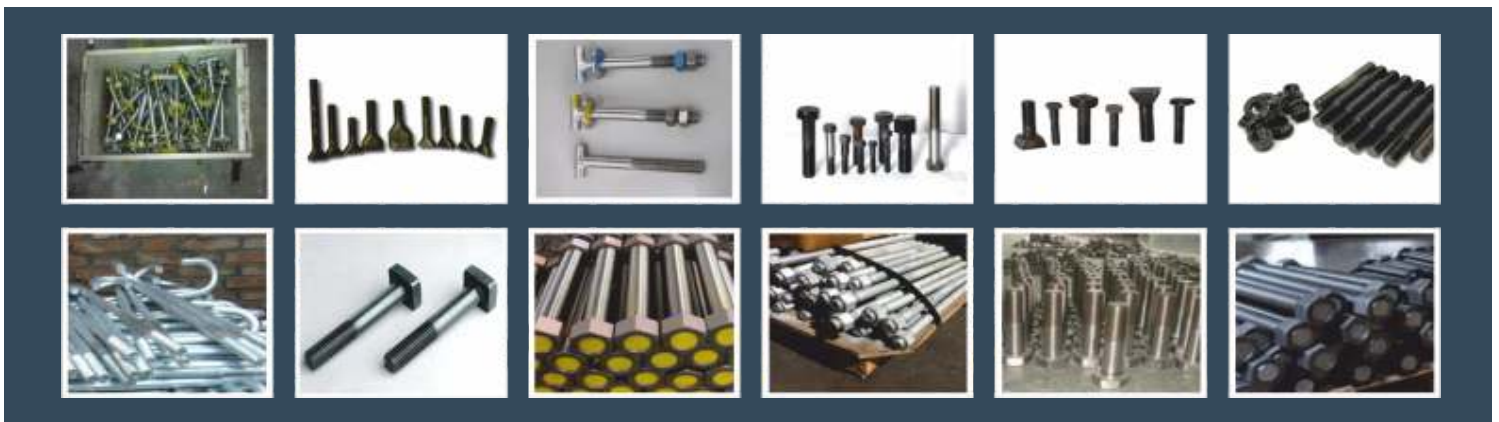
## Unitech

### NUTS & BOLTS

We manufacture all types of Nuts, Bolts, and Washers for Cement and other industries in the following materials and designs: Oval Head Bolt, HEX Head Bolt, Square Head Bolt, and T. Head Bolt. One of the reasons we are different from other fastener companies is that we have the compatibility and expertise to manufacture bespoke fastening products. Most of our products are custom-made—indeed, this is our specialty.

We invite our customers to provide us with the technical specification and material grade required, and we manufacture fasteners to meet these requirements. Our in-depth technical knowledge and manufacturing expertise, coupled with extensive knowledge of worldwide markets, puts us at the leading edge in terms of providing bespoke fastening solutions.

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## Unitech

### IDLER ROLLER AND PULLEY



#### Product Description:

Idlers are the main components of the belt conveyor. We use high fineness and frequency tabulation to manufacture idlers. Impact bearing retainers are made from steel plate. This can make the idler run at a high speed, have elasticity, and protect the idler bend. Big slack bearings make the idlers reduce rubbing resistance and run well at a high speed. A belayed oil-seal structure can make the idler work well in conditions of dust, rain, and high-lower temperature. Lithium grease gives the idler a longer term effect.



1. Our idler is a conveyor idler component which can be used in the harbor, coal mine, mining & mine Power industry.
2. Our idler is eco-friendly since it can be recycled and lessens noise pollution.
3. Our idler retails at competitive prices.
4. Our idler outperforms competitors due to its unique construction and design.
5. Due to the concentric design which decreases vibration, our idler saves the repair and maintenance costs of the conveyor belt.



#### Strengths:

High resistance to wear by abrasion. Excellent resistance to ultra-violet rays. Very low friction efficiency. Due to its construction, the idlers have a reduced noise level. Will absorb higher impact force from conveyed material due to the usage of high quality plastic components. Longer bearing life due to the usage of special anti-seize type of bearings and unique bearing.

Unitech

## CONVEYOR BUCKETS

It's kind of medium deep pattern bucket. In most cases, buckets stopped in use are caused by heavy abrasion on the bucket mouth and the tearing at the bucket mouth or the bolt fitting due to collision in the running. Our D bucket design will relieve such situation in use and extend the life span of the bucket. The unique design has made an appropriate thickness reduction on the bottom which requires a lower intensity, and the saved raw material will be used to increase the thickness of the bucket mouth and the area around bolt holes. In this way, the bucket has higher intensity and can become more wear-resistant without increasing the total weight. This design has been approved by test and widely used by leading conveying equipment manufactures.



### USAGE:

1. Suitable for high speed centrifugal high-speed centrifugal discharge.
2. Recommended minimum bucket spacing: width of the bucket projection "B"+25mm, which can be appropriately reduced according to elevator capacity requirement.
3. Recommended elevator velocity 2.5m/s
4. Recommend using "Z-Y+10%" as usable capacity for engineering purpose.

Our in-depth technical knowledge and manufacturing expertise, coupled with extensive knowledge of worldwide markets puts us at the leading edge in terms of providing bespoke fastening solutions.

### TYPES:

#### Polyethylene, Nylon or Urethane Style CC-HD, XD & U-HD:

A heavy duty agricultural bucket for handling grains, feeds, fertilizers, seeds, salt, sand, chemicals, and a variety of other free flowing materials.

Polyethylene is ideal for most applications, while nylon or urethane is recommended for highly abrasive products or extremely high throughput elevators.

#### Polyethylene, Nylon or Urethane Low Profile:

The same CC-HD, XD or U-HD style agricultural duty bucket as described above only modified to a "low profile" to allow closer spacing on the belt. Used to increase bucket elevator capacity over what can be achieved using conventional buckets and spacing's.

#### Polyethylene, Nylon, Urethane Super Euro Bucket & Euro Bucket:

A European style agricultural duty bucket moulded in a "low profile" configuration. Super Euro Buckets and Euro Buckets are a direct interchange/replacement of European pressed steel and moulded non-metallic buckets.

#### Nylon, Polyethylene or Urethane Style AA and AC:

An industrial duty bucket for handling foundry sand, sand and gravel, coal, fertilizers, clay, salt and many other industrial materials.





## Unitech

### CONVEYOR BUCKETS

#### Ductile Iron or Aluminum Style AA and AC:

An industrial duty bucket for handling stone, foundry sand, sand and gravel, coal, fertilizers, clay, salt and many other industrial materials. Iron is ideal for large, dense, sluggish products or sharp cutting products such as crushed glass. Aluminum is a light weight bucket for nonabrasive products in hot applications (2500F to 4000F /1210C to 2040C) where non-metallic buckets cannot be used because of the high temperature

#### Fabricated Steel Style CCB, Nu-Hy and Sweetheart:

Agricultural duty buckets for handling grain, feeds, fertilizers, seeds, salt, sand, chemicals, food products, and a variety of other free flowing materials. Steel is ideal for sharp cutting products such as crushed glass and hot applications (over 2750F/ 1350C) where non-metallic buckets cannot be used. Diggers used in conjunction with plastic buckets to aid in breaking up tough materials.

#### Fabricated Steel Continuous:

An agricultural and/or industrial duty bucket designed for use on "continuous type" bucket elevators. Runs at slow speed for gentle handling of a wide range of sluggish or fragile materials. No. 1 Norway Flat Countersunk Head: A large diameter thin flat countersunk head bolt with plenty of surface area to secure the bucket and minimize chances of head "pull through" during hang ups. For use on pulleys larger than 6 inches in diameter. No. 3 Eclipse Slotted Head: A smaller diameter ribbed and slotted head bolt for use on pulleys 6 inches and smaller in diameter. Fanged & 3-Prong Western Head: A large diameter thin countersunk head bolt similar to a No. 1 but with two fangs on the underside of head. Fangs penetrate the belt and prevent the bolt from turning during installation and removal. For use on pulleys larger than 6 inches in diameter. Pointed end aids in installation of bolt. 3 prong design is similar to fanged head except has 3 small prongs to grip belt. Select sizes available with metric threads.

Reference 70 Head:

A thicker and smaller diameter head bolt with four lugs in conjunction with a heavy oval washer. Popular for industrial applications using thick belts and pulleys over 20 inches in diameter.



## Unitech

### EXPANSION JOINTS

Unitech is your one call for every style of expansion joint and flexible connector. A complete line of products, combined with our extensive experience, means our industrial customers find exactly what they need.



## Unitech

### DUMPER VALVE

#### Body:

All bodies shall be of fabricated steel flanged construction ANSI B16.5 machine faced to 125 RMS. All flanged bodies shall be sufficiently ribbed to prevent body deflection. Body journals shall be designed to incorporate sufficient clearance and shall not incorporate internal shaft bearings when noted. Upper and lower body journals shall be drilled, tapped and plugged to accommodate purge lines as required. All welded components shall be stress relieved.

#### Disc:

Discs shall be fabricated thru-shaft removable construction and ribbed for maximum flow and minimal deflection. All discs shall be connected by means of tangential taper pins securely fastened with retaining nuts and tack welded. All discs shall incorporate a machined body seat ring for minimum class IV leakage.

#### Seat:

All metal seats shall be located on the disc. The seat will be stepped to maximize the sealing surface and incorporate the specified material. The seat material will be designed to withstand continuous service conditions and not require field adjustment or replacement. Fiber tape replaceable seats will be incorporated as required.



#### Shaft:

All shafts shall be one piece design, 316 stainless steel and machined to accommodate actuators for direct mount. Shaft diameters shall be to AWWA C-504 CL-75B. All stub shaft high capacity designs shall incorporate square drives and disc hubs. All shafts shall incorporate shaft-retaining collars or dual thrust bearings.

#### Packing:

Valves shall incorporate replaceable adjustable packing without removal or disassembly of the valve from the piping. Packing shall consist of 3 rings minimum of .25" grafoil in each body journal. Dual packing as required with external bearings. Packing journals shall incorporate disc & shaft crush ring and maintain a minimum Journal clearance of .250" on the radius.

#### External Roller Bearings:

All valve bodies shall incorporate upper and lower roller bearings to support the shaft and disc assembly. External bearings shall be permanently lubricated and field replaceable without the removal of the valve from the piping. Bearings shall be suitable for indoor/outdoor applications (+1200°F) (-40°F) valve service.

All actuators shall direct mount to the shaft and valve mounting plate. All valves shall be capable of mounting in any orientation in the pipe including the inverted position. Actuators shall be capable of mounting fail open or fail close in the field without changing actuator orientation as supplied by Stealth Valve & Controls Ltd.





# Unitech

## WEAR RESISTANT PLATES

We are supplying the Hordox 400, Hordox 500 and other wear resistance plates and parts, we also supply CostoDur diamond Plates in all size (CDP and HP Brand Plastic), SUS 310 and SUS 316 Plates and parts.

Wear resistant materials are a large class of special electric, magnetic, optical, acoustic, thermal, power, chemical and biological function of novel materials. It is an important foundation material of information technology, biotechnology, energy technology and other fields of high technology and national defense construction, but also plays an important role in the transformation of some traditional industries, such as agriculture, chemical industry, building materials and so on.

Wear resistant material is the core field of new materials which plays an important role in promoting and supporting high-tech development. Wear resistant materials accounting about 85% of the areas of global new materials. With the advent of the information society, wear resistant material is the key of information, biotechnology, energy, environmental protection, space and other high-tech areas in 21st century and becoming the focus of new materials research and development in the world, also the hot spots in world of strategic competition in high-tech development.

The wear resistant materials are mainly included following categories. Wear resistant ball, wear resistant steel plate, wear resistant welding electrodes, wear resistant ceramic, wear resistant, wear resistant rubber, wear resistant pipe, wear resistant bearings, wear resistant welding material, wear-resistant castings, cast stone, polymer and other wear resistant materials.



# Unitech

## METAL WIRES

We are producing metal wire products ( Ropes, Wire, Stands, Mesh, Fibers, Slings)



Steel Wire Ropes & Synthetic Ropes



Reinforcement Stabilized Stands



Steel Wire



Wire Rope Slings, Textile Slings  
Chain Slings, Components of Slings

QEC CERTIFICATION



## Quality Management System Certificate of Approval

This is to certify that the QMS of

**Unitech Filtration & Engineering FZ- LLC**  
P.O Box: 31291 Al-Jazeera Al Hamra, Ras Al Khaimah,  
United Arab Emirates

Has been assessed and found to meet the requirements of

### ISO 9001:2008

This certificate is valid for the following scope of operations:

**Specialized Industrial Machinery & Equipment Manufacturing.**

Authorised by:

**RN Cooke**  
Chief Executive

**Date of Certificate Issue: 10 May 2015**

**Certificate Valid Until: 09 May 2017**

Recertification audit before 07 April 2018. Certified since 10 May 2015.  
This certificate is the property of QEC Certification and remains valid  
subject to satisfactory annual Surveillance audits.

**SN Registrars (Holdings) Limited** Certificate Number: **QEC 31800527/23/Q**

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