ESCO Ultralok® Tooth System
ESCO Corporation
With a history of proprietary products and a reputation for engineering and metallurgical expertise, ESCO is a leading manufacturer of technically-rich ground engaging tools and durable wearparts for mining, construction, dredging and other industrial applications. ESCO also produces a wide array of critical components for the aerospace and power-generation markets. By designing better products, eliminating waste, reducing costs and improving continuously – ESCO is a global leader in providing customers with Quality, Value and Speed.

ESCO Engineered Products
With manufacturing facilities throughout North and South America, Europe and Asia – and licensees in key markets around the world – ESCO Engineered Products is the customer's choice for premier, field-tested wear solutions and ground engaging tools for the toughest, most challenging applications.
ESCO is the leader in innovation and performance for wearparts in the earthmoving industry. Keeping with that tradition, ESCO is excited to introduce the latest breakthrough in construction tooth systems — the Ultralok Tooth system.

Ultralok is an innovative and cost-efficient tooth system that answers customers’ needs in any machine application. The revolutionary integrated locking device makes the Ultralok system two pieces — unlike the traditional three piece tooth systems of the past. The Ultralok is truly a hammerless system, not simply a hammerless locking device. Safety is increased, inventory is reduced and field replacement is simplified.

**Features and Benefits**

**Improved digging performance**
- Better penetration than the competitors through:
  - Lower nose height
  - Smooth point to adapter transition
  - Unique triangular nose shape
  - All new streamlined point shapes

**Easier to use**
- Lock integrated into the point
  - Reduced customer inventory items
  - No picking the wrong sized lock
  - No losing the lock in the field
- One simple tool operates the system— a pry bar
  - Locks point to adapter
  - Unlocks point from adapter
  - Aids in point removal from adapter
- Convenient lock access for operator

**Increased safety**
- Completely hammerless system
  - No hammer needed to lock point to adapter
  - No hammer needed to unlock point from adapter
  - No hammer needed to aid in point removal from adapter
- No hammer means reduced chance of injury
Ultralok® Tooth System

Features and Benefits

Longer wear life
- Average 15% more usable wear metal than competitive systems
- Harder and tougher alloy steel than competitive systems
- Improved penetration aids in wear life increase

Better reliability
- 10% more stabilized mating flats than closest competitor
- Reduced locking device loading
- Proven lock materials and assembly process
- Lock is in reduced wear position

Reduced labor cost
- Improved wear life means less frequent change outs
- Integrated locking device
  - Mistake-proof integrated lock reduces change out errors
  - Point installation is easier with less pieces to handle
**Ultralok® Tooth System**

**Point Shapes**

**Hydraulic Excavators and Face Shovels**

**S** – The S is a standard point, an excellent choice for excavators and wheel loaders in general purpose applications. Designed to wear sharp for penetration, and features a center rib for greater strength.

**C** – The C is a chisel point primarily for use on excavators. The design provides good penetration and extra wear metal in tough applications. The heavy-duty rib and unique tear-drop relief in the bottom keeps the point sharp throughout its wear life.

**P** – The P is a pick point for extremely hard to penetrate materials, and is primarily designed for excavators but can be used on wheel loaders. Top and bottom ribs provide strength and ensures the point stays sharp.

**T** – The T is a twin pick point for maximum performance in hard to penetrate materials. The unique configuration minimizes the chance of rocks wedging between the tines; and is designed for use in the corner positions in conjunction with P style points to cut clearance for the buckets sides. The corner teeth can be switched to maximize wear life.

**F** – The F is a flared point for general purpose digging and continuous edge applications – an excellent choice for trench bottoms and foundation excavations. The wide blade maximizes bucket capacity.

**H** – The H is a heavy point for extremely abrasive applications and is primarily designed for excavators. Additional wear metal provides long point life. The heavy-duty rib and unique tear-drop relief in the bottom help to maintain sharpness as the point wears.

**AP** – The AP is a heavy-duty penetration point for wheel loaders with added wear metal for highly abrasive applications. The beveled tip design ensures sharpness, and the top center rib helps maintain the sharpness. An integral bottom wear shoe provides long life.

**A** – The A point is designed for optimum wear on wheel loaders working in extreme abrasion applications. The beveled tip and top contoured panel ensures excellent bucket loading. The full length bottom wear shoe provides maximum wear life and ensures a smooth floor to minimize the chance of tire damage.

**Quality You Can Rely On**

ESCO Corporation will replace at no charge any Ultralok point or adapter that breaks, FOB point of manufacture, due to defects in materials or workmanship, providing it is not worn out and 100% ESCO components have been used in the assembly.
Ultralok® Tooth System Applications

The Ultralok tooth system is available for a range of construction market segments.

Utility Construction Market

- For utility excavators, loaders, and other compact machines
- Sizes U20, U25 offer adapters and point shapes to fit all applications

<table>
<thead>
<tr>
<th>Size</th>
<th>U20</th>
<th>U25</th>
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</thead>
<tbody>
<tr>
<td>Excavators</td>
<td>6-10 mt</td>
<td>10-15 mt</td>
</tr>
<tr>
<td>Loaders</td>
<td>1.8 yd</td>
<td>3.0 yd</td>
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</tbody>
</table>

Construction Market

- For mid-range wheel loaders and excavators
- Sizes U30, U35, U40 offer one of the widest selections of points and adapters to service applications from general purpose to extreme service
- Wide selection of adapters for most wheel loader and excavator applications

<table>
<thead>
<tr>
<th>Size</th>
<th>U30</th>
<th>U35</th>
<th>U40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavators</td>
<td>15-20 mt</td>
<td>20-28 mt</td>
<td>25-30 mt</td>
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<tr>
<td>Loaders</td>
<td>4.5 yd</td>
<td>6 yd</td>
<td>7 yd</td>
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</tbody>
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Heavy Construction Market

- For large wheel loaders, excavators and face shovels
- Sizes U45, U55, U60 offer a complete range of adapters and points
- Designed and manufactured to perform in the toughest conditions, from pipeline work in rock to demanding quarry applications

<table>
<thead>
<tr>
<th>Size</th>
<th>U45</th>
<th>U55</th>
<th>U60</th>
</tr>
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<tbody>
<tr>
<td>Excavators</td>
<td>30-40 mt</td>
<td>40-60 mt</td>
<td>60-75 mt</td>
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<tr>
<td>Loaders</td>
<td>8 yd</td>
<td>9 yd</td>
<td>12 yd</td>
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Quality, Value and Speed

ESCO’s culture of Quality, Value and Speed (QVS) and lean manufacturing is integral to everything we do. From boardroom to break room, from office to plant floor – ESCO employees strive to reduce waste, ensure safety, drive down costs, decrease lead times, standardize production techniques, and improve continuously. The result: ESCO production output meets strict specifications and offers customers superior flexibility and value. These business practices also create sustainable economic, environmental and social benefits for our employees and in the communities where we operate.

Continuous QVS assessment of each ESCO facility worldwide is based on the following criteria:

**Quality**
- Metal industry expertise
- Capability to identify, eliminate and prevent defects at the source
- Operational stability
- Established culture of continuous improvement
- Production process excellence
- Total material traceability
- In-house metallurgical testing
- Foundry operations: ISO 9001 certified

**Value**
- Quick reaction to changes in customer demand
- Reduced cost of ownership through enhanced product performance
- Products which are easier and safer to replace than the competition’s
- Longer wear life than competitors
- Engineering expertise and product support

**Speed**
- Electronic link to customer order processes
- Real-time customer access to supply chain data
- Rapid prototyping capability
- Global supply chain management
ESCO Corporation is the preferred provider of technically rich metal components and wear solutions for industrial applications. ESCO has over 40 locations and affiliates worldwide.

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