Trasteel Wear Parts is a global benchmark in spare parts for the machinery employed in public works, construction and mining. Since its inception, this brand has aimed at providing an excellent final product.

To this end, a great deal of attention has been paid to all aspects, starting from the design to the selection of raw materials and production processes. This is what defines Trasteel Wear Parts.

The primary objective of this global brand is to combine design and technology to offer a maximum profitability in the field.

**WEAR PROTECTION COMPONENTS**

Our range compiles a huge variety of anti-wear protection elements for all kind of machinery, from excavators, loaders, bulldozers, motor-graders, scrapers and also tools for hydraulic hammers, etc.
With over 25 years’ experience behind us, we propose at an exigent market Trasteel Elite, a full line of teeth and wear components. Our technical department has innovated, developing exclusive designs that provide extra wear material where necessary, extending the life of our teeth.

In addition to offering greater durability, thanks to an innovative design and technologically advanced production processes, our teeth enhance productivity and efficiency levels by increasing performance regardless of the work at hand or the terrain.

Innovation, design, technology and performance are the four main features that define Trasteel Elite.

Trasteel Elite is known for its innovative designs that deliver productivity and profitability.
Design
Our designs provide with the maximum amount of wear material where the tooth needs it most but maintaining optimum penetration to ensure highest productivity.

Raw Material and Chemical Composition
We consider that using the best steels for casting and providing all the chemical elements (chromium, nickel, etc.) in a sufficient and balanced proportion is crucial.

Heat Treatment
Heat treatment is a fundamental aspect in the manufacture of wear material, so much so, that it determines the quality, performance, toughness and hardness of all our teeth and protective elements.

Well coupling Teeth / Adapters
Care is taken to ensure that the fitment between the tooth and its adapter is indefectible to maintain the correct working angles and avoid unnecessary breakages and stoppages.

Production Processes
Every single step in production is essential, and so we follow them strictly:
- casting + normalising +
- heat treatment +
- quenching + tempering.

Image of quality
The aesthetics of a product is decisive once placing it on the market. Attaining an attractive and good quality image is our goal as well.
**Trasteel Elite** offers a wide range of tooth options and profiles, adapters and wear protections for excavators and loaders, bulldozers, etc.

**ELITE P Penetration**
High penetration tooth for general use, with more material and higher productivity. Optimised **ELITE** design.

**Tiger ELITE V**
Highly penetrating symmetrical tooth for extremely compact grounds. Optimised **ELITE** design.

**Penetration HEAVY DUTY ELITE PHD**
Tooth with extra wear material for Heavy Duty applications, excellent penetration and self-sharpening features. Optimised **ELITE** design.

**Twin ELITE TU**
Double tipped highly penetrating tooth for extremely compact ground. Optimised **ELITE** design.
LOADER ELITE L
Tooth for general purposes on loaders for light and loose material. Optimised ELITE design.

TOP PIN ELITE L
Tooth for general purposes with longer service life. Optimised ELITE design.

RIPPER SM TOOTH
Super reinforced RIPPER TEETH for heavy duty applications and self-sharpening profile. Optimised ELITE design.

LOADERS TEETH
LOADER HEAVY DUTY ELITE LHD
Reinforced tooth for loading highly abrasive material and rocks. Optimised ELITE design.

BACKHOE TEETH
BOLT-ON ELITE L
Bolt-on tooth for general purposes with extra wear material. Optimised ELITE design.
ADAPTERS WITH WEAR CAP
SOLID ADAPTERS
We design reinforced and solid adapters to avoid breakages when subjected to very severe working conditions. Optimised ELITE designs.

SIDE BAR PROTECTORS, WELD-ON LIP AND HEEL SHROUDS PROTECTORS

We also offer our customers a wide range of anti-wear protections to cover and reinforce the most sensitive areas of the bucket, protecting it against damage and premature wearing. Optimised ELITE designs.
Available for most of the systems on the market

- CATERPILLAR
- ESCO SUPER V
- KOMATSU
- JCB
- DOOSAN
- H&L
- HYUNDAI
- UNI-Z
- RIPPER CAT
- RIPPER KOMATSU
Trasteel Commodity offers a range of teeth and adapters under top standard designs made of the leading alloys, ensuring productivity and profitability.

Trasteel Commodity is also available for most systems on the market: Caterpillar, Komatsu, Esco, Esco Super V, JCB, Liebherr, etc.

Other Trasteel elements

BI-METAL Protections

We are continually innovating and enhancing our range of protections to meet the needs of our customers. Prolonging the useful life of your equipment with our bi-metal protections.

Accessories

Trasteel Wear Parts also offers the full range of hardware, fasteners and locking systems for teeth and wear elements, and plow bolts for blades.
Features of our Trasteel Wear Parts steels

Trasteel Steels composition

We conduct continuous analyses of the chemical composition of our steels and take care of all the elements of the alloy to guarantee quality.

Carbon, chromium and nickel stand out on our steel due to their inherent properties.

Our steels contain hardly any impurities, as shown by the values of S (Sulphur) and P (Phosphorus), achieved in optical spectrometry tests.

Trasteel Steels specifications

Trasteel has different specifications in its casting steels to achieve adequate ductility and wear resistance in each of the parts.

<table>
<thead>
<tr>
<th>Types</th>
<th>Trasteel steels</th>
<th>Use</th>
<th>Hardness (HRC)</th>
<th>Hardness (HB)</th>
<th>Impact values (J)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teeth &lt; 12 Kg</td>
<td>TST10 TST30</td>
<td>Construction teeth</td>
<td>47-53</td>
<td>450-533</td>
<td>&gt;18J/20J</td>
</tr>
<tr>
<td>Teeth &gt; 12-25 Kg</td>
<td>TST20</td>
<td>Teeth for heavy construction</td>
<td>47-53</td>
<td>450-533</td>
<td>&gt; 22J</td>
</tr>
<tr>
<td>Teeth &gt; 30 Kg</td>
<td>TST40</td>
<td>Mining teeth</td>
<td>47-53</td>
<td>450-533</td>
<td>&gt; 25J</td>
</tr>
<tr>
<td>Adapters &lt; 30 Kg</td>
<td>TSA10 TSA20</td>
<td>Construction adapters</td>
<td>27/37</td>
<td>266-352</td>
<td>&gt; 28J</td>
</tr>
<tr>
<td>Adapters 30-45 Kg</td>
<td>TSA30</td>
<td>Adapters for heavy construction</td>
<td>33-42</td>
<td>306-401</td>
<td>&gt; 30J</td>
</tr>
<tr>
<td>Adapters &gt; 45 Kg</td>
<td>TSA50</td>
<td>Adapters for heavy construction/Mining and quarrying</td>
<td>33-42</td>
<td>306-401</td>
<td>&gt; 32J</td>
</tr>
<tr>
<td>Adapters &gt; 70 Kg</td>
<td>TSA60</td>
<td>Mining and quarrying adapters</td>
<td>33-42</td>
<td>306-401</td>
<td>&gt; 35J</td>
</tr>
<tr>
<td>Weldable bucket protectors</td>
<td>TSP120 TSP130 TSP150</td>
<td>Weldable bucket protectors</td>
<td>40-46</td>
<td>365-436</td>
<td>&gt;20J/23J</td>
</tr>
</tbody>
</table>
Hardness and Resilience

The study of alloys shows that Trasteel steels exceed expectations in hardness and toughness.

Quality is one of our fundamental pillars and to prove this, we carry out external hardness and resilience controls in laboratories certified by ENAC (National Accreditation Entity).

In the reports, our customers can see the homogeneity of our products, which obtain Vickers hardness between 566-577 HV (whose equivalent in Brinell hardness, tested with Tungsten carbide, is 532-543 HB). The resilience achieved in our laboratory tests also indicates that we use hard and tenacious steels, leading to greater absorption of energy by impact.

The hardness lines where the measurements have been made are indicated below:

<table>
<thead>
<tr>
<th>Hardness point Nº</th>
<th>1 (HB)</th>
<th>2 (HB)</th>
<th>3 (HB)</th>
<th>4 (HB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line I. Hardness value</td>
<td>577 (543)</td>
<td>566 (531)</td>
<td>567 (532)</td>
<td>569 (534)</td>
</tr>
<tr>
<td>Line II. Hardness value</td>
<td>577 (543)</td>
<td>569 (534)</td>
<td>571 (536)</td>
<td>569 (534)</td>
</tr>
<tr>
<td>Line III. Hardness value</td>
<td>571 (536)</td>
<td>576 (542)</td>
<td>569 (534)</td>
<td>566 (531)</td>
</tr>
</tbody>
</table>
Trasteel
BLADES

Blades and Cutting Edges
Trasteel Blades is the result of vast experience in designing, development and marketing of all types of spare parts and ground engaging tools for machinery.

We are talking about specialists with more than 25 years of constant innovation, which has led to the creation of Trasteel Blades, a leading brand that offers their customers exceptional performance in the field.

In this sense, and always willing to respond to a great variety of Trasteel Blades offers a range of blades with an outstanding quality that will provide with an optimal response to the most demanding projects.
Cutting edges, blades and end bits for bulldozers, motor graders, loaders, scrapers, etc.

We have performed several analyses to verify the mechanical capabilities of our steels in external laboratories certified by ENAC (National Accreditation Entity). Most of our tests exceed our specifications.

<table>
<thead>
<tr>
<th>Trasteel steels</th>
<th>Use</th>
<th>Hardness (HRC)</th>
<th>Hardness (HB)</th>
<th>Impact values (J)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSB50</td>
<td>Cutting tool and construction blades</td>
<td>46-52</td>
<td>445-514</td>
<td>&gt; 24J</td>
</tr>
<tr>
<td>TSB40</td>
<td>Cutting Tool and construction lades</td>
<td>36-43</td>
<td>345-430</td>
<td>&gt; 24J</td>
</tr>
<tr>
<td>TSC80</td>
<td>Levelling Blades</td>
<td>25-32</td>
<td>255-302</td>
<td>&gt; 18J</td>
</tr>
</tbody>
</table>

All our suppliers manufacture under the ISO 9001 Standard

Available for all major brands: CATERPILLAR, KOMATSU, VOLVO, JOHN DEERE, CASE

Trademarks of manufacturers appearing are for reference purposes only. It is not implied that any part listed is the product of these manufacturers.
End bits and blades for bulldozers and scrapers

- Blades with STD, HD and extra HD thickness
- Tungsten Carbide impregnated blades
- Cast blades for Bulldozers
- Different versions of End Bits:
  - Flat/Curve hot cupped
  - Heavy Duty and Extra Heavy Duty
- Cast End Bits
- One piece Ripper shanks
- Scraper routers

Loader and excavator blades

Trasteel Blades offers a wide range of loader blades and protections:

- Base blades
- Bolt-on blades
- Segments
  - HALF ARROW blades
  - Weld-on side protectors
  - Bucket plates protectors

Motor grader blades

- Boron steel heat treated grader blades: display a very high resistance to impact and wear under very demanding working conditions
- High Carbon steel grader blades: the best choice for cost-efficiency in general working conditions
- End bits and overlays: essential for the good performance of the machine
- Serrated graders blades for compact and frozen ground
Tools for hydraulic hammers and milling bits
Trasteel Tools offers our customers two lines of tools for demolition and milling:

- Tools for Hydraulic Hammers
- Milling bits

Both are manufactured with rigorous and demanding quality controls common to all Trasteel Wear Parts, delivering excellent results.
## Milling bits

The **Trasteel Tools** Bits follow and meet all our own quality requirements. We offer a full bits range for different works as milling for rock, concrete and asphalt with exceptional performance on all of them.

Our range of cutting tools covers diameters from 10 m/m to 30/38 m/m., each applying different lengths and diameters on Tungsten Carbide tip.
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