# .Trastee



Steel Performance



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**.



#### 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.

## 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.

#### **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.





**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.

#### **EXCAVATOR TEETH**



#### 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.

#### **LOADER TEETH**



#### LOADER HEAVY DUTY ELITE LHD

Reinforced tooth for loading highly abrasive material and rocks.

Optimised **ELITE** design.



#### **TOP PIN ELITE L**

Tooth for general purposes with longer service life.

Optimised **ELITE** design.

#### **BACKHOE TEETH**



#### **BOLT-ON ELITE L**

Bolt-on tooth for general purposes with extra wear material.
Optimised **ELITE** design.



#### **RIPPER SM TOOTH**

Super reinforced RIPPER TEETH for heavy duty applications and selfsharpening profile. Optimised **ELITE** design.

#### RIPPER TEETH







and reinforce the most sensitive areas of the bucket, protecting it against

damage and premature wearing.

Optimised **ELITE** designs.



#### Adaptable for most on the market





















Other manufacturer's names, descriptions, pictures and part numbers are used for reference purposes only.



#### **Trasteel Commodity**

**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, 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 steeel 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.

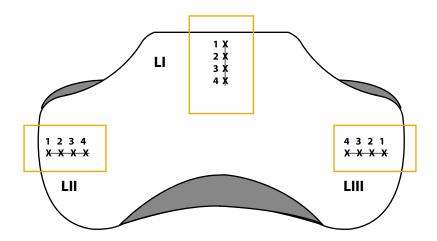
Types	Trasteel steels	Use	Hardness (HRC)	Hardness (HB)	Impact values (J)
Teeth < 12 Kg	TST10 TST30	Construction teeth	47-53	450-533	>18J/20J
Teeth > 12-25 Kg	TST20	Teeth for heavy construction	47-53	450-533	> 22J
Teeth > 30 Kg	TST40	Mining teeth	47-53	450-533	> 25J
Adapters < 30 Kg	TSA10 TSA20	Construction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

#### 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:

Hardness point N°	1 (HB)	2 (HB)	3 (HB)	4 (HB)
Line I. Hardness value	577 (543)	566 (531)	567 (532)	569 (534)
Line II. Hardness value	577 (543)	569 (534)	571 (536)	569 (534)
Line III. Hardness value	571 (536)	576 (542)	569 (534)	566 (531)

#### **ENAC-certified tests**

Conducted in external laboratories



# Trasteel WEAR PARTS

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