



QUALITY WEAR PARTS

G.E.T. SPECIALIST



SPARE PARTS FOR EARTHMOVING AND MINING EQUIPMENT

PRODUCT OVERVIEW



FASTENERS



TEETH
& ADAPTERS



RIPPER
SHANKS



BLADES



HYDRAULIC
BREAKER TOOLS



CARBIDE
TOOLS



españa,
technology
for life.



BYG S.A.U. is awarded with the ISO 9001:2015 quality certificate, which certifies the Quality Management System of the organization

INTERNATIONAL COMPANY

EXPERIENCE

For more than 50 years BYG has been manufacturing quality wear parts for heavy earth-moving equipment for the civil engineering, quarrying and mining industries.

Founded in 1967, BYG has established a proud history and tradition of quality and service.



HISTORY

- 1967 BYG founded in Barcelona
- 1970 Blade workshop incorporation
- 1973 National expansion begins
- 1978 BYG Seville, Madrid and Tenerife
- 1992 First export sales
- 1993 New facilities in Molins de Rei
- 1999 First branch: Portugal
- 2004 BYG Germany
- 2004 Futura manufactured
- 2005 BYG Corporation USA
- 2008 BYG Canada, BYG China
- 2008 ISO 9001 | FUTURA BP
- 2010 BYGPlus+ Franchises in Spain
- 2010 FUTURA TWISTER
- 2012 FUTURA MINER
- 2014 Usco Group
- 2016 BYG wear parts App
- 2017 BYG 50 anniversary
- 2018 New website

ALL AROUND THE WORLD

By way of subsidiaries, agents and distributors located all around the world BYG is able to supply customers promptly and efficiently. Our global experience and knowledge base enables us to offer professional and personalized services. We supply the best quality products, technical training, on-going customer support with integrated logistics solutions. Today, because BYG has customers on all continents, we have chosen reliable logistics agents in every region of the world that can advise and assist you in meeting your shipping requirements.



COMMITMENT

Our commitment is to give our customers competitive advantages, confidence and build a strong long term personal relationship. Our goals are to make business easier, more efficient and profitable. Your success is our satisfaction.



IN-HOUSE MANUFACTURING. DEDICATED MACHINERY

Three manufacturing facilities in Spain

MANUFACTURING PLANT 1

- 4 Stations automatic machining (BELT-25/30 25/40 KITAMURA DRIGDE BELT CENTER PALLETIZING SNK PORTICO 5000)
- 1 Station automatic drilling (CMA 4000)
- 1 Station manual drilling
- 1 Station of puncture swimming (manual)

MANUFACTURING PLANT 2

- 2 Centers automatic drilling (13T-15T-17T)
- 1 Station manual punching
- 1 Station manual painting
- 1 Station automatic CNC cutting MMPP(MAINOX)
- 1 Automatic bucking station

MAIN MANUFACTURING PLANT

- 3 Stations for mech. robot (KUKA 1.2-3)
- 1 Robotic cutting station MMPP (KUKA-4)
- 1 Robotic station mec. plasma (KUKA -5)
- 1 Robotic station for paint (FANUC-1)
- 2 Stations automatic CNC (CNC-2-3)
- 1 Station manual machining (KOIKE)
- 1 Station straightening MMPP
- 1 Station automatic grinding (blasting)
- 2 Stations bucking manual
- 1 Station manual beveled
- 1 Station CNC cutting (CNC -1)
- 1 Station for manual painting
- 1 Station for manual grinding
- 1 Station hand soldering



ENGINEERING AND INNOVATION

INNOVATION

BYG has created a Research and Development Department with the most modern and advanced technology available. BYG's engineers develop new products every day responding to customer needs and ideas. The goal is the design of efficient and high performance products for every application. A sophisticated inventory control program enables us to have the best inventory availability of parts in the shortest time around the world. The BYG Web site offers you a valuable resource of product

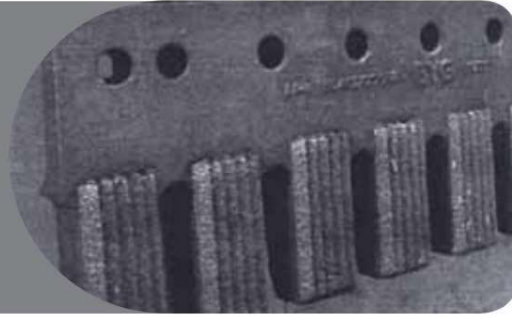
knowledge, availability and prices. BYG Online Service helps you access product information and knowledge 24 hours a day. You can quickly and easily view the status of your orders, shipments and account status. BYG provides solutions, quality, experience and confidence. We will help your business to reduce cost, improve productivity and profit. We can be your unique supplier of Quality and High Performance after-market wear parts.



FULL RANGE OF BLADES FROM 12 TO 160MM

TUNGSTEN OVERLAY

700 Hb



TUNGSTEN OVERLAY

Powder metal alloys are used in the PTAW (Plasma Transfer Arc Welding) process. Tungsten carbide overlay sits on a middle layer to release stress and improve impact toughness.

BIMETALLIC

63-67 Rc



BIMETALLIC BLADES

Bimetallic plates are welded by chromium carbide overlay on a mild steel backing plate. Excellent performance in abrasion resistant applications.

BYG CLASSIC

CARBON 250 Hb
BORON 500 Hb



BYG CLASSIC FABRICATED LIPS

Standard bulldozer blades for general use, made out of rolled steel. Rolled steel blades are available in different thicknesses to suit work being done.

POLYURETHANE

SHORE 93 A

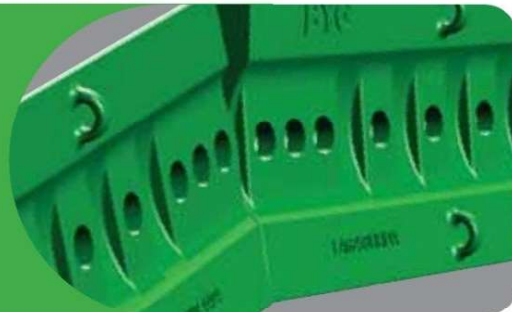


POLYURETHANE

Wide range of polyurethane blades for special applications where handling of chemicals or other materials are involved.

CAST BLADES & END BITS

500 Hb

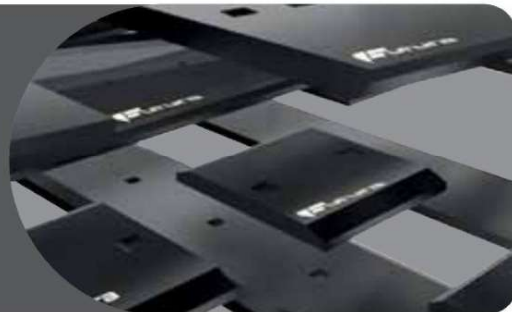


CAST BLADES

Special cast blades for high abrasion and or high impact conditions. They are notably reinforced and provide greater resistance to breakage compared to rolled blades.

PREMIUM BLADES

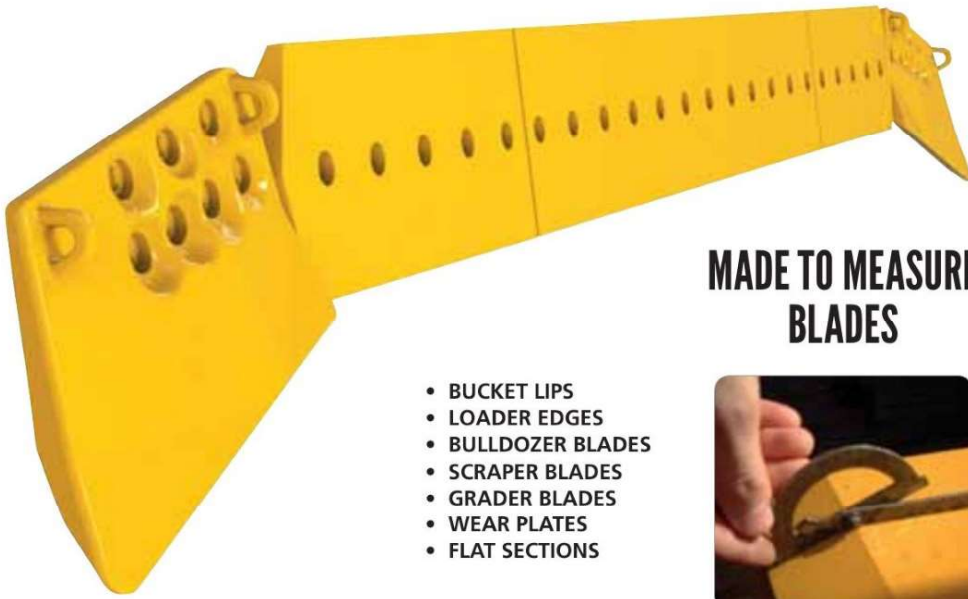
550 & 600 Hb



FUTURA PREMIUM BLADES

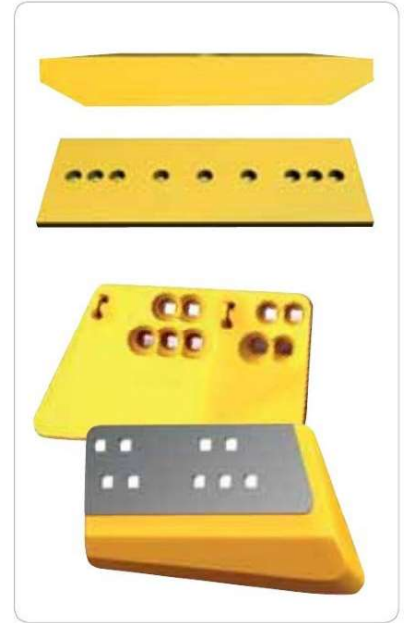
Try the FUTURA 550 PREMIUM blades in applications where you use ordinary 500HB blades and gain an extra 60% service life.

FABRICATED STEEL LIPS AND EDGES

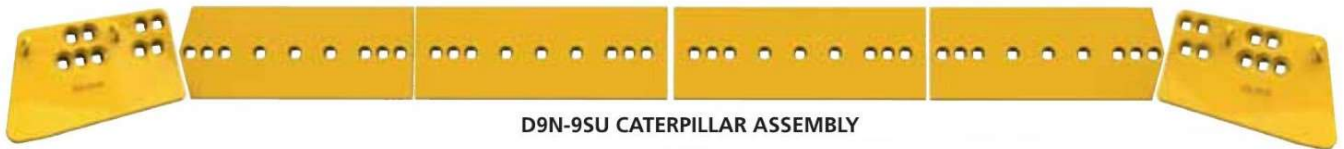


MADE TO MEASURE BLADES

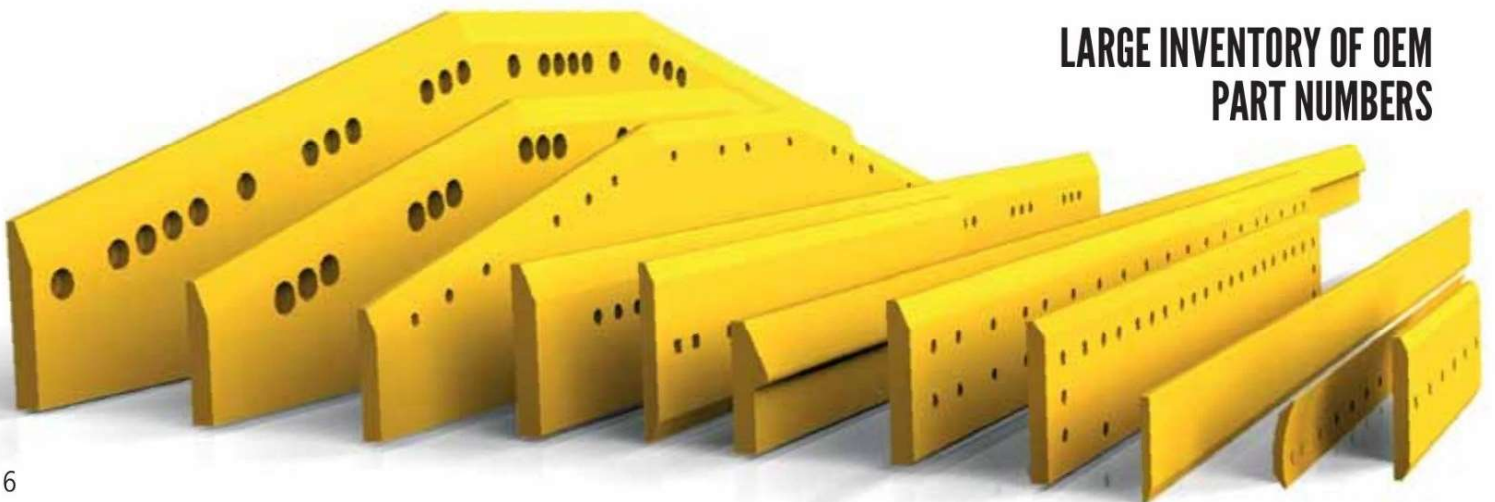
- BUCKET LIPS
- LOADER EDGES
- BULLDOZER BLADES
- SCRAPER BLADES
- GRADER BLADES
- WEAR PLATES
- FLAT SECTIONS



D11-11U CATERPILLAR ASSEMBLY

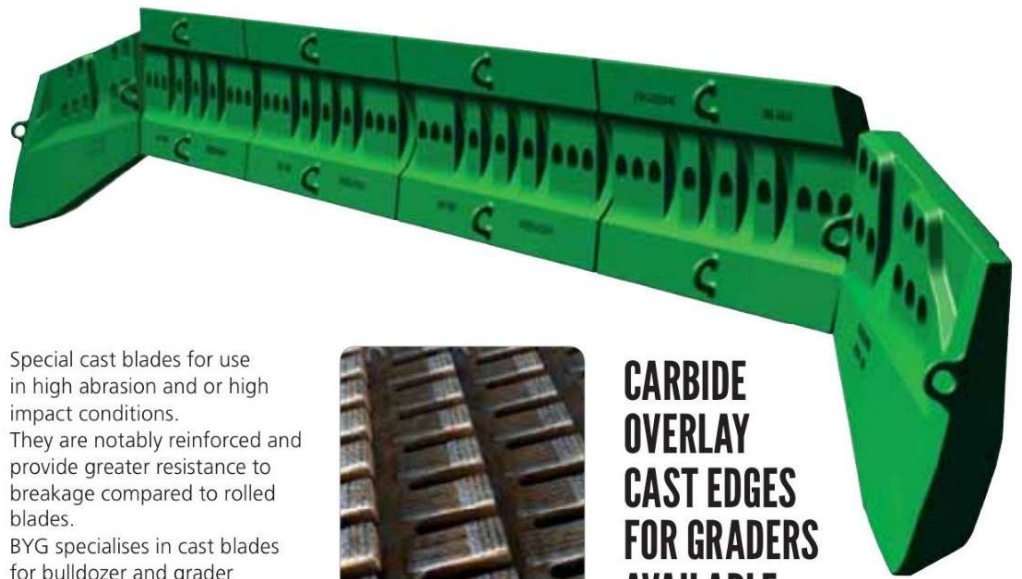


D9N-9SU CATERPILLAR ASSEMBLY



**LARGE INVENTORY OF OEM
PART NUMBERS**

CAST BLADES FOR BULLDOZER AND GRADERS



Special cast blades for use in high abrasion and or high impact conditions. They are notably reinforced and provide greater resistance to breakage compared to rolled blades. BYG specialises in cast blades for bulldozer and grader machines



CARBIDE OVERLAY CAST EDGES FOR GRADERS AVAILABLE



D11-11U CATERPILLAR ASSEMBLY

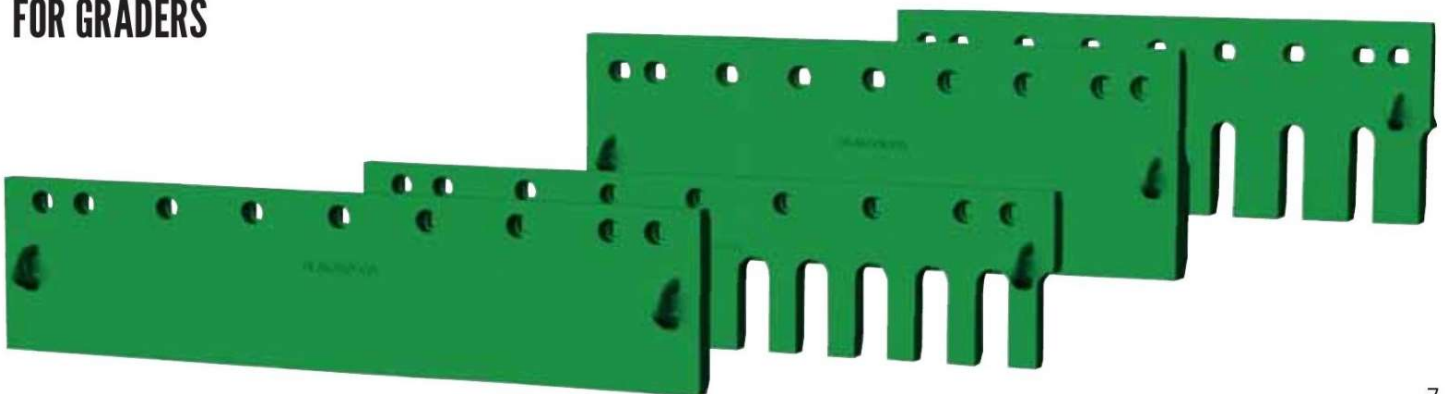


D9N-9SU CATERPILLAR ASSEMBLY

SPECIAL CAST EDGES FOR GRADERS

CAST EDGES FOR GRADERS

MACHINE FINISHED CAST END BITS

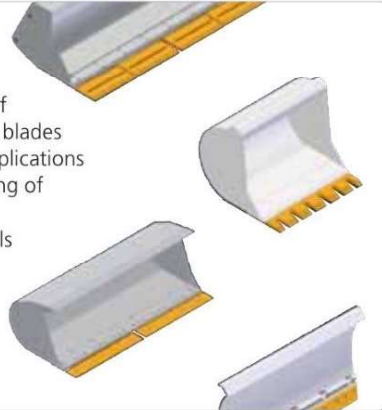


OTHER STEELS

POLYURETHANE



Wide range of polyurethane blades for special applications where handling of chemicals or other materials are involved.



TUNGSTEN OVERLAY

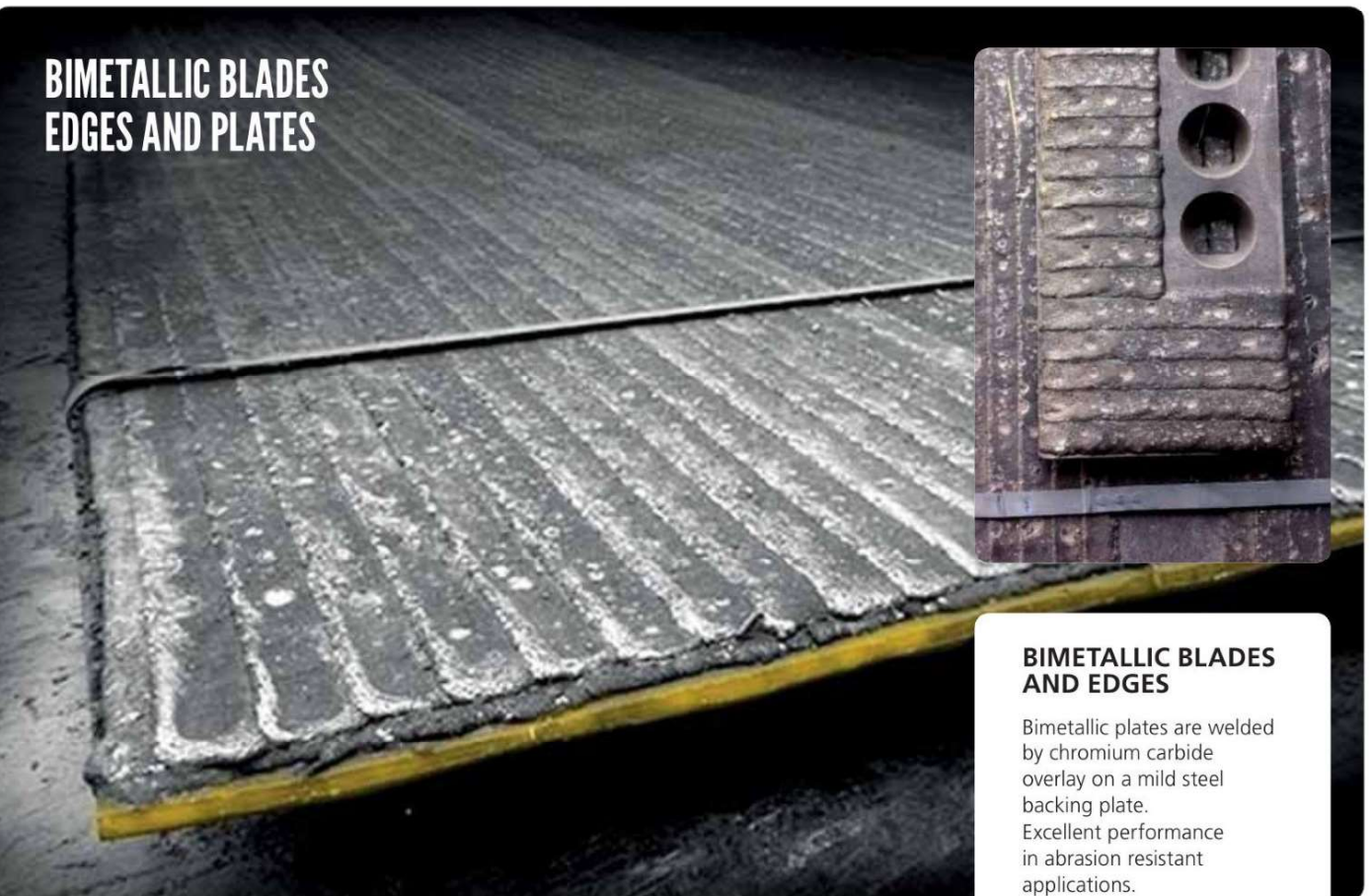


TUNGSTEN OVERLAY

Powder metal alloys are used in the PTAW (Plasma Transfer Arc Welding) process. Tungsten carbide overlay sits on a middle layer to release stress and improve impact toughness.



BIMETALLIC BLADES EDGES AND PLATES



BIMETALLIC BLADES AND EDGES

Bimetallic plates are welded by chromium carbide overlay on a mild steel backing plate. Excellent performance in abrasion resistant applications.

FUTURA PREMIUM BLADES



**+60%
wear
life**

blade

NEW FUTURA EXTREME PERFORMANCE BLADES

FUTURA 550 and FUTURA 600 are abrasion resistant steels with a nominal hardness of 550 and 600 HBW. Typical applications are components with abrasion resistance.

**BASE AND BOLT-ON EDGES FOR BULLDOZER
GRADER AND SCRAPER**



**FUTURA 550 BRINELL: OFFERS +60%
WEAR LIFE COMPARED TO OTHER 500
BRINELL BORON STEEL**



**FUTURA 600 CAN BE A SUBSTITUTE FOR
CARBIDE OVERLAY CUTTING EDGES AT A VERY
AFFORDABLE COST**

Mechanical Properties

	Thickness mm	Hardness HBW	Resilience CVL
FUTURA 550	8.0 - 65.0	525 - 575	30J / -40°C
FUTURA 600	6.0 - 51.0	570 - 640	20J / -40°C
	51.1 - 65.0	550 - 640	20J / -40°C

Chemical Composition

	C Max%	Si Max%	Mn Max%	P Max%	S Max%	Cr Max%	Ni Max%	Mo Max%	B Max%
FUTURA 550	0.37	0.50	1.30	0.020	0.010	1.40	1.40	0.60	0.004
FUTURA 600	0.47	0.70	1.00	0.015	0.010	1.20	2.50	0.70	0.005

FUTURA PREMIUM BLADES

Try the FUTURA 550 PREMIUM blades in applications where you use ordinary 500HB blades and gain an extra 60% service life.

FASTENERS GRADE 9



HIGHER HEAD

BYG bolt's heads are 20% higher than American Standard B18.2.1. The bolts provide increased fatigue life and maximum holding force for the nut.



SAE GRADE MARKS

The radial marks indicate the grade of SAE strength for better identification. Six marks on the head guarantee the quality grade 12.9/35-38 Rockwell (113/124 kg./mm²)

FINE GRADE STEEL

Fine Grade Steel Provides an even microstructure improving its resistance with a lower percentage of breakage.



LAMINATED THREAD

Laminated with the maximum precision BYG bolt and nuts provide a better hold eliminating the risk of breaking.



FORGED HEAD

Provides a correct flow of the steel fiber, reducing the fatigue points, ensuring major resistance to bumps and an even distribution of the weight. The edges do not round off and the bolts can be reused. The washer sits perfectly below the head.

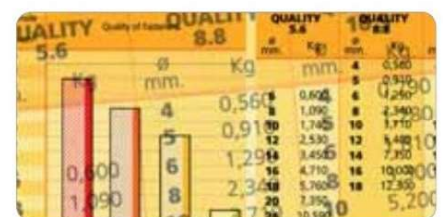
FASTENER KITS

Three handy sets of fasteners available:

K1M Set of metric bolts, nuts & washers classified into 3 practical carry cases. Case dimensions: 43x32x9cm. Contents: 2.124 parts of metric hardware. Diameters: Ø6 to Ø16mm.

K1C Set of UNC bolts, nuts & washers classified into 2 practical carry cases. Case dimensions: 43x32x9cm. Contents: 906 parts of UNC hardware. Diameters: Ø1/4" to Ø1/2".

K1F Set of UNF bolts, nuts & washers classified into 2 practical carry cases. Case dimensions: 43x32x9cm. Contents: 882 parts of UNF hardware. Diameters: Ø1/4" to Ø1/2"



TEETH AND ADAPTERS BYG CLASSIC



BYG
Classic

DIRECT REPLACEMENT PARTS FOR:

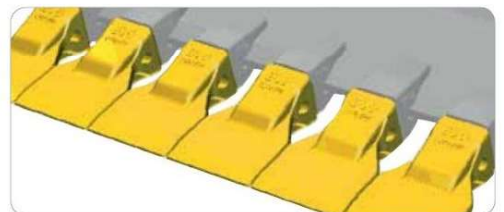
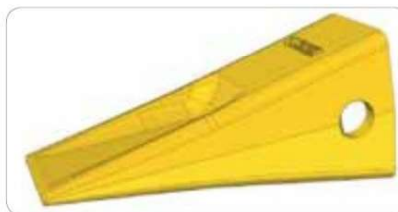
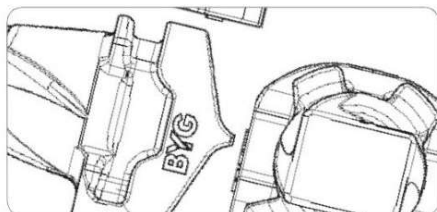
- | | | | |
|----------------|-----------|--------------|------------------|
| • Atlas | • Fai | • JCB | • Mini Excavator |
| • Bofors | • Komatsu | • John Deere | • Orca |
| • Case-Poclair | • Fiat | • Komatsu | • O&K |
| • Caterpillar | • Hensley | • Liebherr | • Pengo |
| • Esco | • H&L | • Lehnhoff | • Uni-Z |

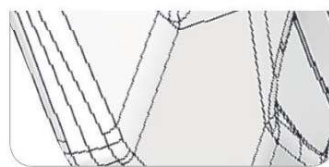
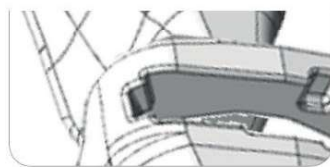
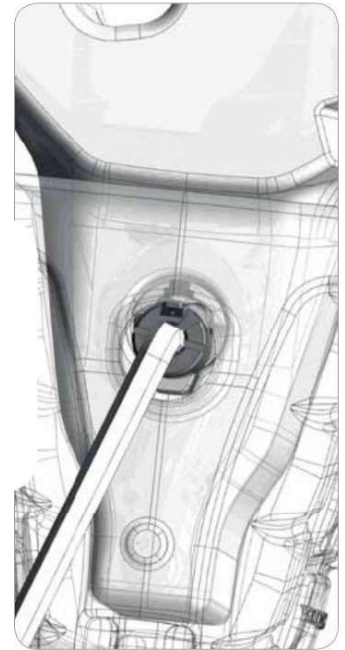
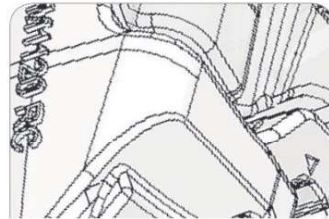
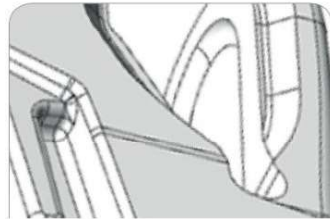
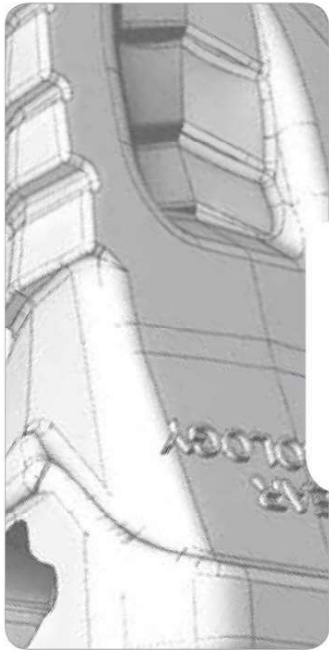


Steel casting provides the best combination of impact and abrasion resistance. BYG Classic replacement teeth achieve the optimum balance between hardness and toughness with hardness levels up to 530 Brinell. BYG Classic replacement teeth are cast to fit perfectly on all O.E.M. adapters. Designed to be stronger and last longer than any comparable teeth on the market, our products feature

built in cast quality and highly accurate fit at the most competitive prices. BYG cast teeth product range includes a complete line of products to fit from the smallest to the largest machines. Whatever the requirement, BYG has a tooth system which fills the need, offering a full selection of tooth shapes for applications in mining, quarries and construction.

LOCKING PARTS





www.futuraweartech.com

HAMMERLESS SOLUTIONS

FUTURA offers a wide range of quick and easy to install hammerless fastening solutions that completely eliminate the need for hammers to assemble parts, thus increasing onsite safety and shortening general machine operation downtime.

INCREASED SAFETY

FUTURA hammerless fastening solutions contribute to increase onsite safety. The hammerless fastening systems offered are quick and easy to install and avoid the risks of hammer manipulation, notorious for causing thumb and finger injuries.

SHORTEST DOWNTIME

With the design of quick and easy replacement assemblies, FUTURA engineered fastening solutions contribute to reduce downtime. Hammering is also avoided and parts remain perfectly locked in place.

PROVEN PERFORMANCE

FUTURA RANGE has approximately 20% more usable wear material than other similar systems in the market. FUTURA teeth are generally heavier than other competitor's teeth in the same category size and models.

The additional steel has been added in key areas where the

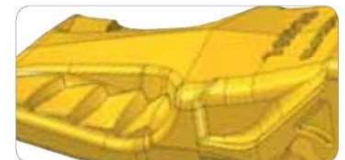
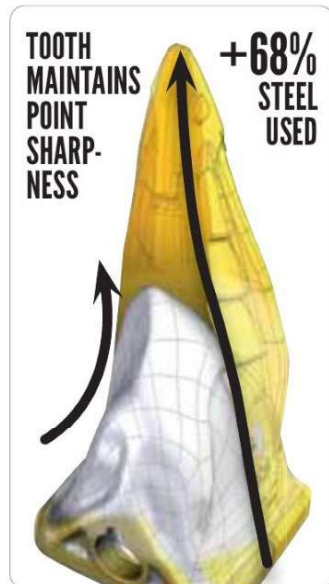
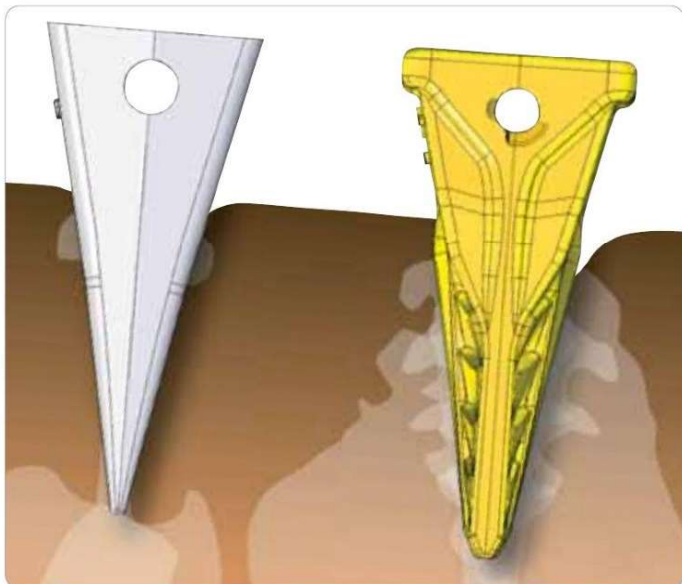
tooth is subject to wear. It is not just the length of the tooth or the percentage over the total weight. What really counts is the total wear material weight. You can find high ratios, but less weight means fewer cycles achieved. FUTURA teeth last many more cycles.

SELF-SHARPENING DESIGN

Raised central ribs, lateral ribs and recessed pocket help material flow, significantly extend tooth wear life and increase sharpness properties providing better tooth penetration, maintaining sharpness without reducing tooth resistance.

More than 68% of wear steel is consumed on FUTURA worn teeth compared to new ones.

Thanks to its optimal design more than 68% of steel has been used without losing teeth sharpness



FUTURA PRODUCT RANGE



TWISTER

COMPLETE RANGE FEATURING
TEETH, ADAPTERS, WELD-ON
NOSES AND PINS
SIZES 130 TO 810

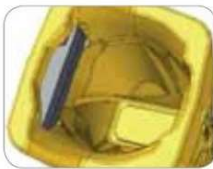


COMPATIBLE
WITH ESCO
SUPERV®

FUTURA TWISTER adapters are
suitable to be used with Escó
SuperV® teeth



FUTURA TWISTER teeth and
pins fit on your current SuperV®
adapters



TWISTER HAMMERLESS

EXCEPCIONAL FITMENT
COMPATIBLE WITH ESCO
SUPERV® ADAPTERS



PROPRIETARY SYSTEM

4 NERVE NOSE EXCLUSIVE SYSTEM

HAMMERLESS SYSTEM



FC2



UNIVERSAL HAMMERLESS SYSTEM

DIRECT REPLACEMENT PARTS FOR

- ADCO
- BRADKEN
- CASE
- CATERPILLAR
- ESCO
- FIAT HITACHI
- H&L
- HENSLEY
- JOHN DEERE
- KEECH
- KOBELCO
- KOMATSU
- MINI
- TATA HITACHI
- VOLVO
- VOLVO-HITACHI

HAMMERLESS SYSTEM



DRP



FUTURA X2 RANGE

COMPATIBLE WITH HENSLEY® XS®

HAMMERLESS SYSTEM



X2



FUTURA T2 RANGE

COMPATIBLE WITH ESCO® SV2®

HAMMERLESS SYSTEM



T2



FUTURA MINER

MINER

FUTURA MINER FOR
MACHINES UP TO 800T



Futura Miner teeth will fit onto standard Esco® Posilok® or Posilok® Plus Intermediate adapters.



Esco® Posilok® and Posilok® Plus teeth will fit onto Futura Miner Intermediate adapters.

SELECTION GUIDE

NOSE SIZE	TOOTH SIZE	HITACHI	TEREX	CATERPILLAR	KOMATSU	KOMATSU DEMAG	LIEBHERR	MACHINE WEIGHT
950	950	EX3500 EX3500-3	RH120E	5230ME 3560B 6030	PC3000 PC3000-6	H285	R994 R9250	>350T
1100	920	EX3600	RH170	6040 6050B 523B	PC4000	H285S	R9250 R9400 R9350 R994B	350-500T
1300	1120	EX5500 EX5600	RH340 RH360	6060FS	PC4000 PC5500 PC5500-6	H485S	R995	500-750T
1450	1220	EX8000	RH400	6090FS	PC8000	H48JS	R9800 R996	750-1000T

Futura Miner size 950 tooth and wear cap



FUTURA DREDGE

DREDGE



THREE OVERLAY OPTIONS AVAILABLE FOR ALL FUTURA PARTS



**PTAW
CHROMIUM
CARBIDE OVERLAY**



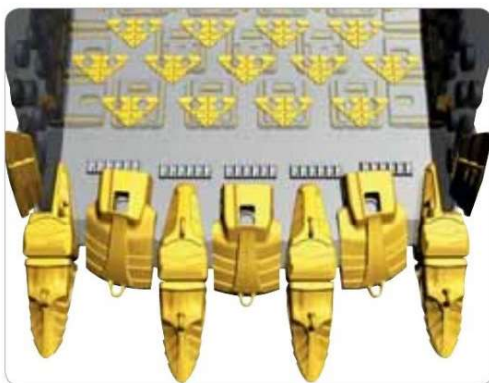
**PTAW
TUNGSTEN**



ARM HARDFACING



COMPLETE RANGE OF BUCKET PROTECTION PARTS



FUTURA buttons and bars are manufactured with 20% more wear material in the wear area and the welding plate than other standard buttons & bars

Standard Futura

RIPPER SHANK AND COMPONENTS

BYG specializes in manufacturing one-piece machine finished ripper shanks without any welding avoiding the risk of breakage on welded areas.

HIGH TOUGHNESS

BYG ripper toughness is very high even under the most difficult ripping conditions, such as low temperature or extreme ripping. Only the highest quality steels are used on our production facilities in Spain.

HIGH STRENGTH

Due to its high strength, our shanks have better dimensional stability because they maintain the same thickness along the shank and thus sustain a smaller amount of permanent deformation.

Our one-piece ripper shanks are cut to length, formed and fully machined. Made of

tough abrasion resistant alloy steel and thru-hardened for strength and maximum wear life. We offer a complete range of shanks for main O.E.M. brands on the market, covering from the smallest ripper shank up to the largest 110 mm thick, for the biggest dozers on the market.

IMPROVED ADAPTER PROFILE

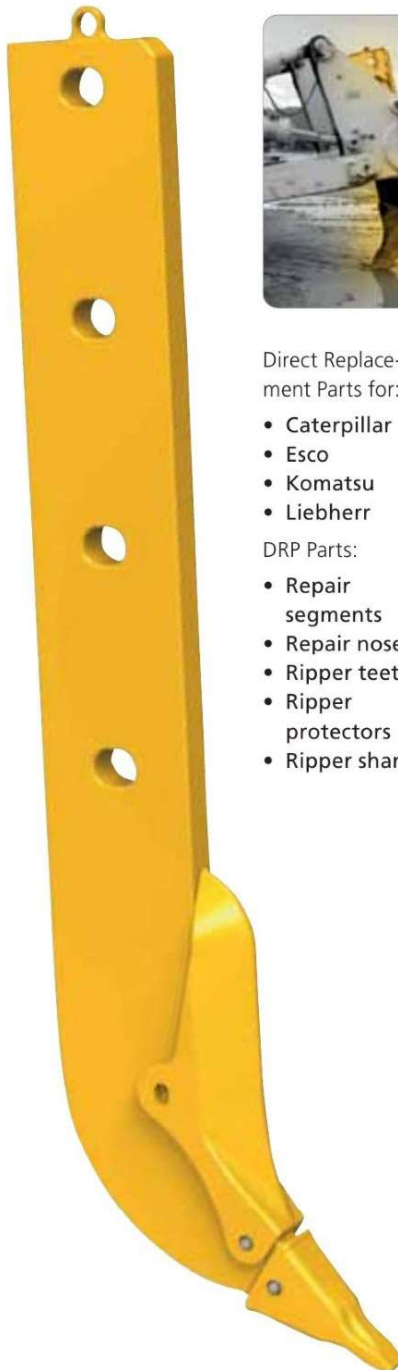
Improved adapter profile by reducing the gap between the adapter and the protector to the minimum.

IMPROVED DESIGN

Reinforced adapter box keeps ripper teeth movement to the minimum as well as protecting the rear area of the tip.

BETTER DIMENSIONAL STABILITY

Dimensional stability is achieved with same thickness of material along the shank.

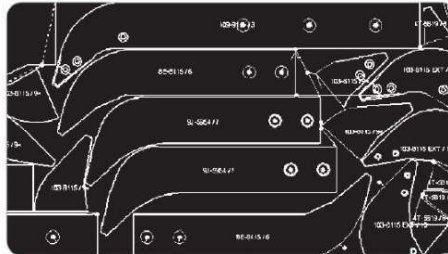


Direct Replacement Parts for:

- Caterpillar
- Esco
- Komatsu
- Liebherr

DRP Parts:

- Repair segments
- Repair noses
- Ripper teeth
- Ripper protectors
- Ripper shanks



▶ MACHINE FINISHED RIPPER SHANKS
▶ MANUFACTURED IN ONE PIECE FOR SUPERIOR STRENGTH



RIPPER

The FUTURA **RIPPER** range complements and improves performance of your ripper shanks. Futura **RIPPER** offers **HAMMERLESS** solutions for major OEM brands

Extended design with extra protection for shank and tooth

PARTS AND TOOLS FOR HYDRAULIC BREAKERS



CARBIDE CUTTING TOOLS

Applications

- **MACHINE FOUNDATION AND DRILLING** Soil walls, mines and tunnels
- **MILLING** Road planning, concrete cutting, demolition and recycling
- **TRENCHING** Construction of canal and water pipes



CARBIDE TIP
Hardened for optimized pick life

SHANK
Quenched and tempered for constant tensioning force, even during long duty periods

SLEEVE
Pre-tensioned for quick and easy pick assembly

HOLDER
Special wear plate for low toothholder wear and optimum pick rotation

BYG.com

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 BYG S.A.

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 @BYG_com

 BYG Wear Parts App

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Catalog online





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