PRODUCT OVERVIEW

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

FASTENERS
TEETH & ADAPTERS
RIPPER SHANKS
BLADES
HYDRAULIC BREAKER TOOLS
CARBIDE TOOLS
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.

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

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-1ST-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

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.
FULL RANGE OF BLADES FROM 12 TO 160MM

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

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

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.

FUTURA PREMIUM BLADES
Try the FUTURA 550 PREMIUM blades in applications where you use ordinary 500HB blades and gain an extra 60% service life.
Large inventory of OEM part numbers made to measure blades under request.

Fabricated steel lips and edges.

- Bucket lips
- Loader edges
- Bulldozer blades
- Scraper blades
- Grader blades
- Wear plates
- Flat sections

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.

D9N-9SU assembly with cast edges and end bits.

Cast edges for graders.

Machine finished cast end bits.

Cast end bit profile.
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.

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.

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"
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.
FUTURA WEAR TECHNOLOGY

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.

TOOTH MAINTAINS POINT SHARPNESS +68% STEEL USED

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 WEAR TECHNOLOGY

www.futuraweartech.com
FUTURA PRODUCT RANGE

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

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

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

TWISTER HAMMERLESS
EXCEPCIONAL FITMENT COMPATIBLE WITH ESCO SUPERV® ADAPTERS

Super V® is a registered trademark of Esco Corporation. Manufacturer's names, descriptions, pictures and part numbers are used for reference purposes only.
10

SV2® and XS® are registered trademarks of their respective owners. Manufacturer's names, descriptions, pictures and part numbers are used for reference purposes only.

**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

**COMPATIBLE WITH**

- COMPATIBLE WITH ESCO® SV2®
- COMPATIBLE WITH HENSLEY® XS®

**PROPRIETARY SYSTEM**

- 4 NERVE NOSE EXCLUSIVE SYSTEM
- HAMMERLESS SYSTEM

**UNIVERSAL HAMMERLESS SYSTEM**

- HAMMERLESS SYSTEM

**FUTURA X2 RANGE**

- COMPATIBLE WITH HENSLEY® XS®
- HAMMERLESS SYSTEM

**FUTURA T2 RANGE**

- COMPATIBLE WITH ESCO® SV2®
- HAMMERLESS SYSTEM
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

<table>
<thead>
<tr>
<th>NOSE SIZE</th>
<th>TOOTH SIZE</th>
<th>HITACHI</th>
<th>TEREX</th>
<th>CATERPILLAR</th>
<th>KOMATSU</th>
<th>KOMATSU DENAG</th>
<th>LIEBHERR</th>
<th>MACHINE WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>950</td>
<td>950</td>
<td>EX3500</td>
<td>EX3500-3</td>
<td>5230ME</td>
<td>3560B</td>
<td>6030</td>
<td>PC3000</td>
<td>H285</td>
</tr>
<tr>
<td>1100</td>
<td>920</td>
<td>EX3600</td>
<td>RH170</td>
<td>6040</td>
<td>6050B</td>
<td>523B</td>
<td>PC4000</td>
<td>H285</td>
</tr>
<tr>
<td>1300</td>
<td>1120</td>
<td>EX3500</td>
<td>EX3600</td>
<td>RH340</td>
<td>RH360</td>
<td>6060FS</td>
<td>PC4000</td>
<td>PC5500-6</td>
</tr>
<tr>
<td>1450</td>
<td>1220</td>
<td>EX8000</td>
<td>RH400</td>
<td>6090FS</td>
<td>PC8000</td>
<td>H48JS</td>
<td>PC8000</td>
<td>R9800</td>
</tr>
</tbody>
</table>

### THREE OVERLAY OPTIONS AVAILABLE FOR ALL FUTURA PARTS

- **PTAW CHROMIUM CARBIDE OVERLAY**
- **PTAW TUNGSTEN**
- **ARM HARD-FACING**
FUTURA buttons and bars are manufactured with 20% more wear material in the wear area and the welding plate than other standard buttons & bars.
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.

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.
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 CUTTING TOOLS**

- **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