

ULTRABITE[®]

TECHNOLOGY



PRECIOUS METALS SHAVINGS
MACHINE MAKER

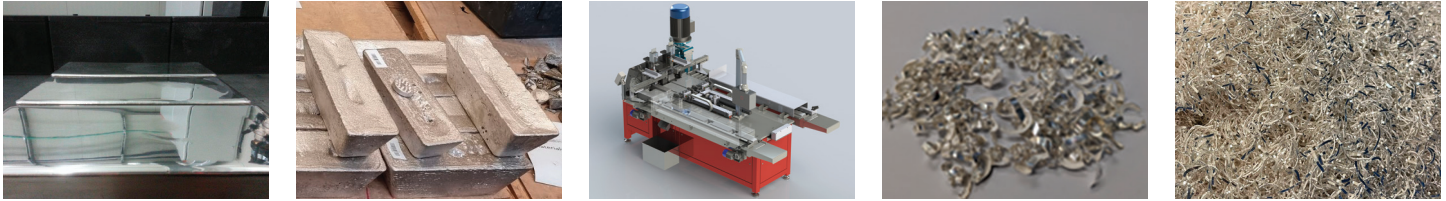


IKOI
PRECIOUS METALS INGENUITY

ULTRABITE®

TECHNOLOGY

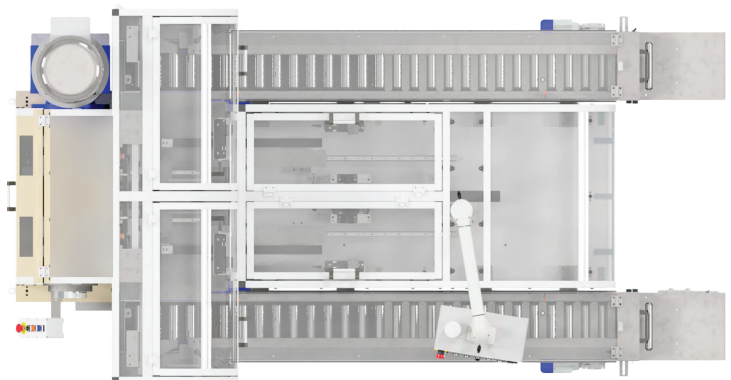
IKOI's UltraBite® represent our new patented technology which consent to mechanically "destroy" 1000 Oz Silver Good Delivery bars and Doré bars, in order to create shavings.



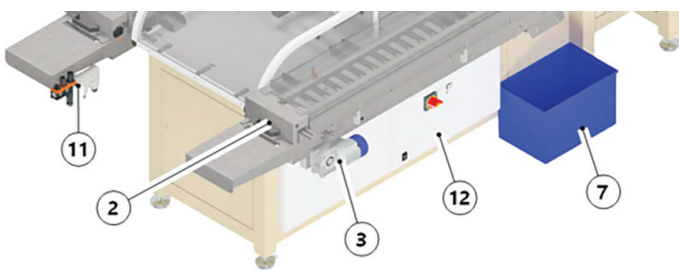
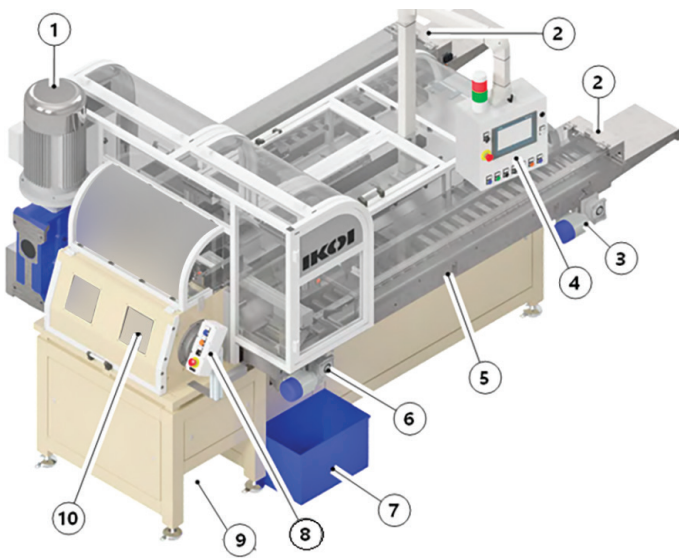
The standard machine is supplied without the two lateral motorized roller conveyor (optional), but they can be added according to the customer's needs. The operator loads the bars, that need to be treated, directly on the machine or on the two laterals motorized conveyor. Automatically the mechanical pushing devices move the bars in the central position ready to be shredded by the sprocket wheel.



Shredding Extractor conveyor belt



Lateral automatic motorized roller conveyor



Ref.	Indication	Description
1	Grinding roller drive motor	This component activates the grinding roller on the two silver bars, which are pushed on the grinding roller by an electric actuator
2	Bar loading area	This is the area used for the manual loading of the silver bars. At this point the operator lifts the mobile casing to position the silver bar. When the mobile casing is lifted, a microswitch is actuated which stops the roller conveyors until the mobile casing is closed
3	Initial roller conveyor drive motor	
4	Control panel	This component allows the Ultrabite to be started or stopped and work cycles to be programmed
5	Guard access request push-button panel	
6	Final roller conveyor drive motor	
7	Waste discharge area	In this area, there is a container where all the rear parts of the silver bars that cannot be ground will be discarded
8	Guard access request push-button panel	This push-button panel allows the machine operator to request access to all machine guards
9	Silver shaving discharge area	In this area, there is a container where the shavings from the grinding of the two silver bars will be discarded
10	Grinding area	In this area, two silver bars are ground by a roller with interchangeable blades
11	FRL Unit	This component manages the inlet air pressure and filters it
12	Main electrical panel	

Precious Metals refineries continuously transform materials in shape, composition and form, using a wide variety of chemical and metallurgical processes. In these operations, efficiency and sustainability are essential.

One way to improve both is to apply processes that can help the handling of the material by:

- reducing the bulk volume,
- increasing the capacity of the existing equipment
- reducing the energy consumption

Mechanical processes, like shredding, compacting, pressing and briquetting, can be deployed in different parts of the Refinery to improve the overall handling, dosing, processing of the materials and even to propose alternative value-added products.

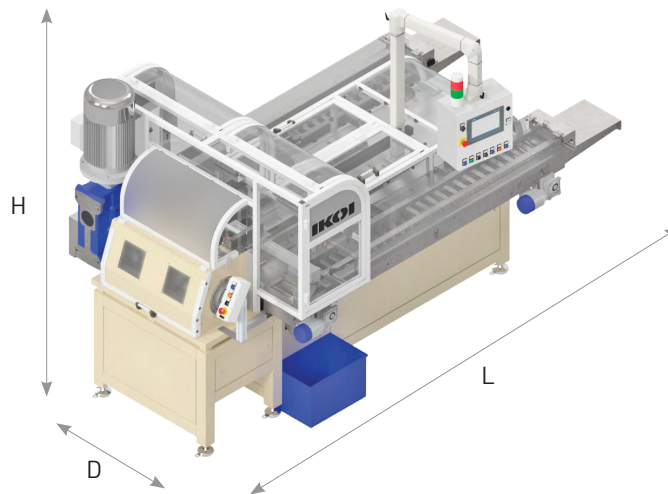
This permits to have a more efficient use of space, volume and energy in many refineries production steps.



TECHNICAL DATA ULTRABITE® MOD. Z90

Electric feeding	400V – 3 phases – 50Hz
Installed power	~20 kW
Motor Power of the Shredding Wheel	~15kW
Others	~5kW
Treatable metals	Doré bars – 1000 Oz Ag GD Bar
Treatable bars size	Doré bars with different height (from 30 mm to 100mm)
Min – Max bars length	From 100mm to 350mm
Min – Max bars width	From 60mm to 150mm*
Maximum productivity	Up to 6 bars per hour (3 + 3)
Compressed Air inlet pressure supply	6÷8 bar
Environment temperature (min – max)	10÷40 °C
Max relative moisture	70% @ 25°C Room Temperature
Weight	~2.500kg
ULTRABITE® MOD. Z90 DIMENSIONS (complete with inlet buffer rollers)	
Length	3224mm
Depth	1730mm
Height	2008mm

*Processable range after manual tooling can vary from 60mm-90mm to 120mm-150mm



IKOI is the leader in the pyrometallurgical processes for the precious metals refineries, mints and jewellery market, thanks to our technology for vacuum distillation, melting & casting, heat treatments and crystallization.

Our Vision is to create a Safe, Efficient and Green way to Process Precious Metals and our Mission is to bring Innovative and Sustainable Technology to Precious Metal Industry.

With more than 300 plants installed in more than 50 countries, we are a reference point for the industry.