

Graining Systems



AUTOMATED GRAINS
PRODUCTION SYSTEMS



IKOI
PRECIOUS METALS INGENUITY

 **LBMA**
AFFILIATE
MEMBER

Graining Systems

GRAINING SYSTEMS

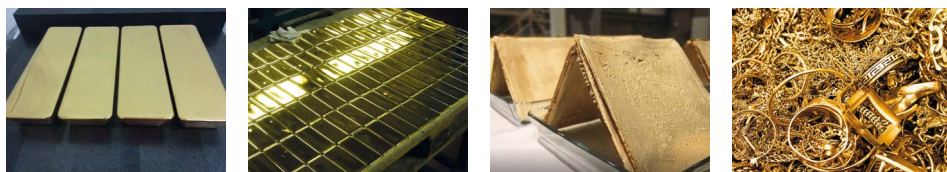
IKOI developed multiple, complete, efficient and automatic systems for the production of gold, silver and copper grains, pure or alloyed. The production capacity range is between 5 Kg Au and 500 Kg Au, open air, under vacuum or with protected atmosphere. Our standard production also includes systems for producing fine micro-grains. On request, IKOI can supply special solutions for larger capacity productions.



Starting from different feed-stocks to the sieved homogeneous spherical grains.



GD Ag Bars Small Ag Bars Ag Crystals Ag Ultrabite Shavings Silver scraps



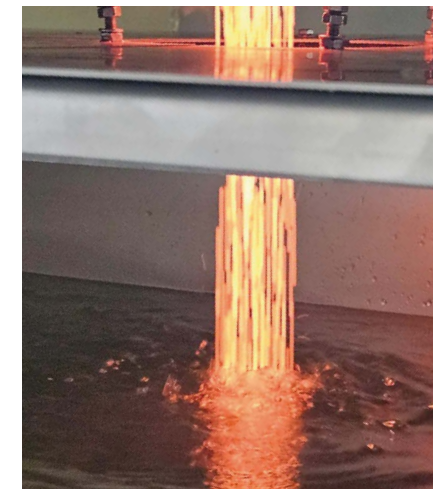
GD Au Bars Small Au Bars Au Cathodes Goldsmith scraps

Graining Systems

IKOI S.p.A. designs and produces induction graining machines/systems accordingly with the customer requests. This technology permits to obtain high quality grains through a controlled pouring and rapid water-cooling process, ensuring uniform grains size and excellent material quality. Inside the crucible, the feedstock is heated thanks to the induction system; then the molten metal flows out from the holes of the granulating die, forming drops which fall directly into the water.



Graining machine with automatic grains extraction

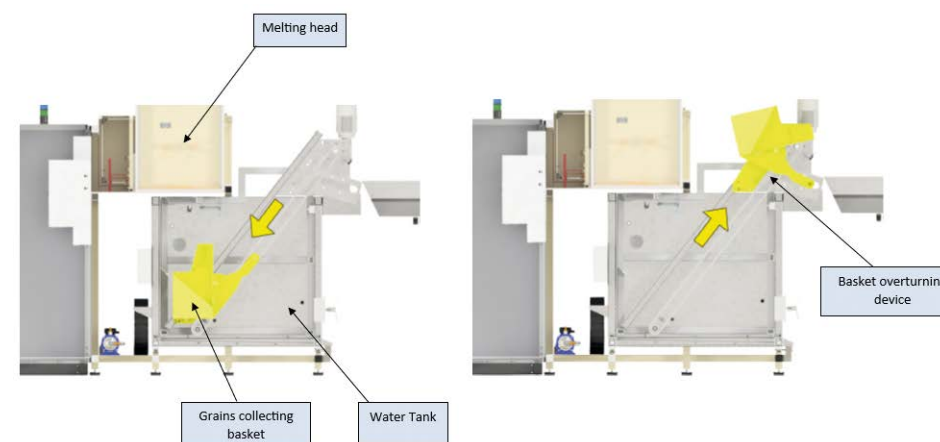


Melted Metal flow

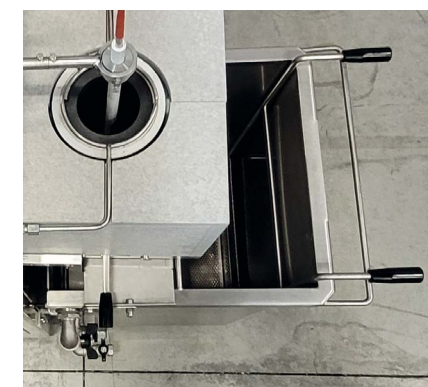


Au and Ag grains

The graining machines are supplied with an automatic or manual lifting grains basket system which consent to the operator an easy and safety collecting process. Depending on customer's needs, the graining systems can be supplied with an automatic lifting and tilting device for unloading grains directly into the drying unit.



Automatic lifting and tilting grains discharging system



Manual lifting

Graining Systems

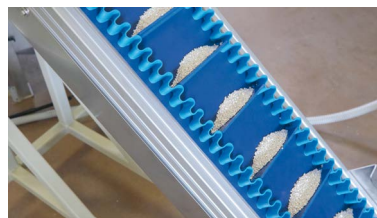
Different drying systems are available depending on the required productivity; such as:



All dryers use a very efficient principle of forced hot air recirculation. The heating technology of the unit supplied for big production (tumbler dryer) is combined with a principle of overturning and destruction of the lumps using by mechanical movement of the tumbler.



After the drying phase, the grains can be automatically discharged into the sieving station by conveyor belt. The system is composed by a vibro-sifter machine for the separation of different grains diameter sizes. Conveyor belt and sieving system can be supplied also separately.



TECHNICAL DATA	Z55_MICRO	Z55_310	Z55_315	Z55_335	Z55_060	Z55_100	Z55_150	Z55_250
Crucible capacity [Au 9999]	5 Kg Au	10 kg	15 kg	35 kg	60 kg	100 kg	150 kg	250 kg
Installed power	15 kW	10 kW	16 kW	35 kW	50 kW	65 kW	70 kW	150 kW
Power Supply	230/400/480 V 3-ph 50-60 Hz							



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

Data here above are not binding and they could be changed during the studying or construction phase of the machine.