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PRECIOUS
METALS
POWDER
ATOMIZER

NECESSITY IS THE MOTHER OF INVENTION



ATO NOBLE
A NEW DIMENSION

OF PRECIOUS

METAL POWDER

ATOMIZATION

Based on our extensive experience, we have created a breakthrough solution - ATO Noble for powdering precious metals.

ATO Noble responds to customer needs concerning the economic atomization of expensive and rare metal alloys. As there is no limit to minimum load and it is easy to prepare the system for another material, the cost-efficiency and freedom of the atomization process are ensured.

Due to the application of a precisely calibrated ultrasonic system, we can process materials such as gold, silver, platinum, etc., not worrying about the high loss of the valuable raw material.

# MAXIMUM MATERIAL RECOVERY

We are aware that every gram of the material is at a premium. Therefore, when creating ATO Noble, we intended to obtain the best possible powder flow ratio. We have succeeded, and it has directly influenced the efficiency of the whole process. The use of a dedicated filtration system allowed us to minimize material losses of precious alloys below 1% and facilitate their subsequent recovery for reuse.

## TARGET MARKETS:

- Jewellery
- Healthcare
- Electronic industry
- Aerospace
- Metal processing industry

## KEY FEATURES OF ATO NOBLE:

- Dedicated solution for processing noble metals,
   e.g. gold, silver, platinum
- Processing high density alloys and rare earth metals
- Reduced losses below 1% of the processed material
- Maximum Material Recovery dedicated filtration system to minimize materialloss and facilitate its recovery for reuse
- Precise process control thanks to the application of dedicated oxygen sensors
- Compact dimensions of the device
- High quality powders exceptional flowability, perfect sphericity, and a narrow particle size distribution





## SPECIFICATION



### GENERAL INFORMATION

| process                  | metal powders production                            |
|--------------------------|---|
| technology               | ultrasonic atomization                              |
| melting method           | TIG   |
| sonotrode type           | nanoalloy sonotrode                                 |
| cooling method           | liquid  |
| processable materials    | Ag, Au, Pt, Pd and more                             |
| powder quality           | high flowability, narrow particle size distribution |
| powder collecting system | cyclone   |
| material form            | wire / rod  |

### **PARAMETERS**

| ultrasonic frequency         | 35 kHz (+ upgrade to higher frequency) |
|------------------------------|--|
| ultrasonic powder            | up to 800W                             |
| O <sub>2</sub> level (delta) | < 150 ppm                              |
| plasma current               | up to 220A                             |
| system throughput            | up to 0,25 l/h                         |
| machine weight               | 700 kg.                                |
| size[HxWxD]                  | 1997 x 813 x 1533 [mm]                 |

### REQUIREMENTS

| air supply              | compressed air station        |
|-------------------------|-------------------------------|
| inert gas               | Årgon                         |
| power supply            | 400V, 20KVA / 3 phase         |
| powder recycling system | sieving unit                  |
| water cooling           | external chiller <sup>®</sup> |