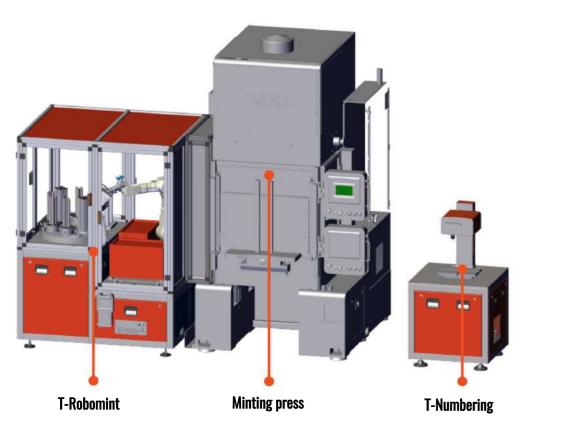
TAILORED AUTOMATION FOR THE HIGHEST ACCURACY

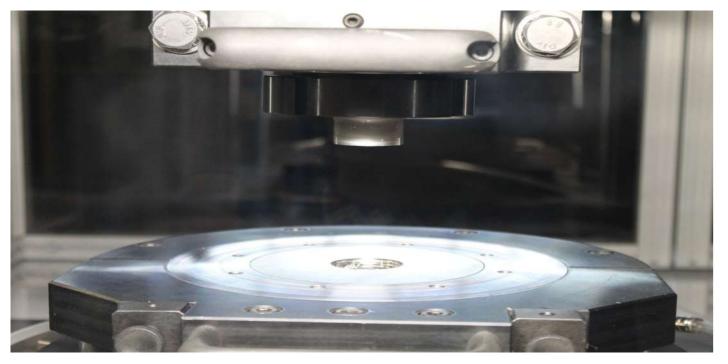
Each Tera Automation machine can be conceived **as part of a modular line** which can be combined according to the company's needs and facility space. **Each machine can be fitted to existing machines and a full line can be developed over time.**

T-Robomint™ is an automation which can be integrated to other machines, according to each operator's specific needs.:



HIGH QUALITY STAMPS

Tera Automation can also provide top quality stamping dies and minting sets.





HEADQUARTERS

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TERA AROUND THE WORLD







Automated tending system for hydraulic presses to mint coins and stamp ingots



Smart Manufacturing for the Future





forging competitive clients™





THE ADVANTAGES OF AN AUTOMATED SOLUTION

- Operators only have to take care of automation settings
- Fast and safe operations
- Continuous processing without any waste of time
- **Quality** is consistent over time
- Staff costs are optimized



Max abs. power	Production	Integrated robot	Managing and contro
8 kW	Depending on the press output	Anthropomorphic robot	Touch control panel & F

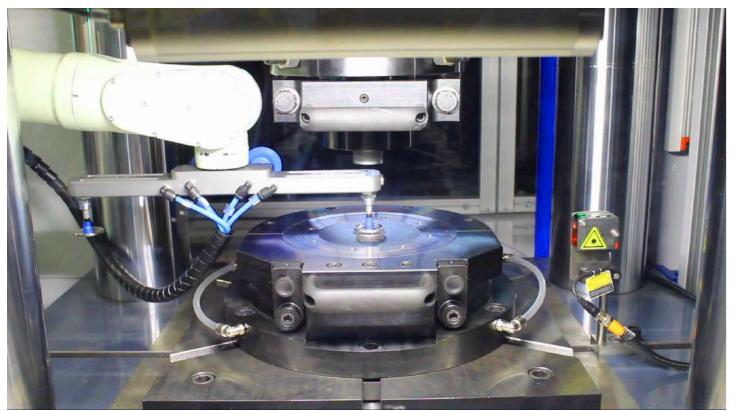


Stamped coins



Overview of the robotized tending ystem

Automation for coin and ingot minting



WHAT IS T-ROBOMINT

T-Robomint[™] is an automation system especially designed for refineries, private and government mints producing a considerable amount of minting coins, medals and ingots every year. These companies usually manufacture products with different designs by employing several presses; given their traditional manufacturing method, they rarely manage to achieve a continuous production flow. Thanks to T-Robomint[™], presses - whether they already exist within the company or they are provided by Tera Automation - achieve an unprecedented level of autonomous production. That's because operators will only need to monitor the performance of one or more presses operating at the same time. Minting presses were originally designed to be handled manually, but

T-Robomint[™], by means of an **antropomorphic robot** system, made them autonomous. Automating the stamping division means: more work shifts, a continuous production, no constant need for operators, and a consistent yield over time. T-Robomint[™] allows the production of **different** designs; you will only need to change the design of the press stamp and, if needed, the vacuum gripper necessary to pick blank up. medals As a matter of fact, the suction area is calibrated according to

diameter and can be adjusted using a regulator. The same process applies for ingot stamping.

HOW IT WORKS

The T-Robomint[™] automation includes:

- a loader containing the pieces that need to be minted/ stamped;
- an antropomorphic robot with double gripping system;
- a working station for the zero adjustment of blanks;
- a tray to collect minted/stamped pieces.

The loader has an overall capacity which varies according to the design of coins/ingots. Once rough blanks are finished, the loader can be easily removed and replaced with a new one, so as to avoid production delays. The antropomorphic robot fitted to the T-Robomint[™] is provided with **two gripping points** thus allowing two simultaneous gripping systems: one gripping system moves the blanks from the loader to the press work surface, while the other one grasps the finished product and releases it in the final collection area. A special gripping system is also available to produce Proof coins. Once it has been minted/ stamped, the finished product is brought to and released in the **collection tray**. These trays are not attached to each other, so that the supervisor can collect the trays that are full without needing to interrupt production.



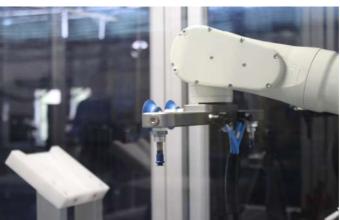




Detail of the zero adjustment template



feed



Details of robot grippers



Detail of the pile of collection trays

