

Aluminium Rotary Extrusion by Properzi

Continuous rotary extrusion machinery branded under the name **Pro-Form**, which stands for **Properzi Forming**, is our newest product offering.

Characteristics

The machine with a 300 mm wheel does not occupy much space; it has a footprint approximately 2.5 m x 2.5 m with a height of 2 m.

The largest Pro-Form machine, having a 500 mm wheel, requires additional space; it has a footprint approximately 4.5 m x 5.5 m with a height of about 3 m.

The installation of the necessary auxiliary equipment requires an increase in the overall length of the line and is defined according to the customer's necessities and the space available. The minimum length of a Pro-Form line with a 300 mm wheel is about 20 m when incorporating options such as double entry, wire(s) cleaning at the inlet, defect detection devices for the finished product, and depending upon the desired take-up (package/format) additional space may be required.



Applications

Using as their feedstock the aluminium or copper rod produced on Continuous-Properzi CCR systems, of which there are more than 350 sold worldwide, the continuous rotary extrusion technology can be utilized for many applications:

- Al sheathing of steel wires
- Al solidal cables and conductors
- Cu and Al profiles/bus bars
- Al tubes
- Al alloy rod direct from cast bar
- Cladding of steel wire with aluminium

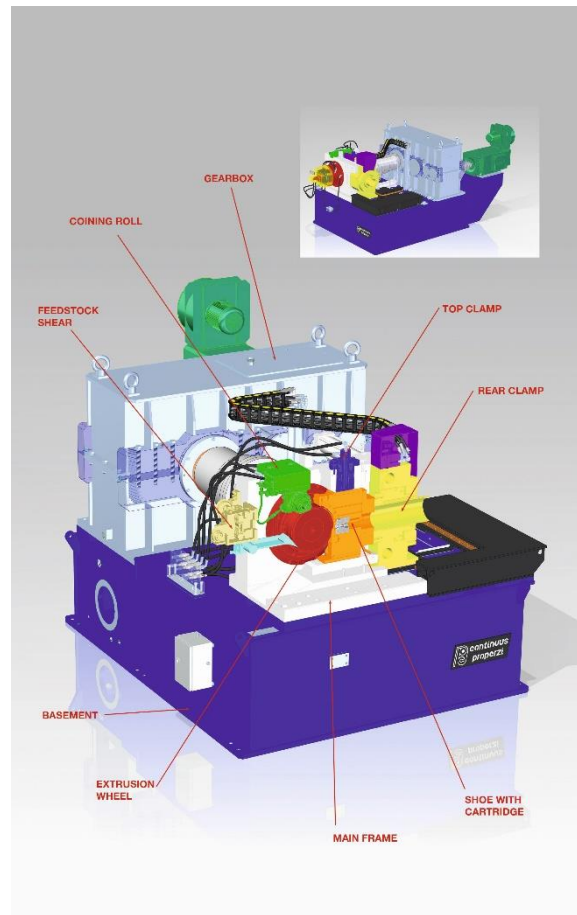


Advantages

- The versatility of the Pro-Form allows processing of aluminum, aluminum alloys (1xxx, 3xxx, 5xxx) and copper. The most common forms for copper are bus bars.
- It is also possible to obtain a steel cable clad with an aluminium skin. This semi-finished product is typically used for the construction of high voltage cables that utilize aluminium-clad steel (ACS) wire.
- low capital cost
- high production rates
- close tolerances
- low installation and maintenance costs
- low energy consumption
- continuous production
- low scrap levels

Regarding aluminium-clad steel (ACS) wire, Continuus-Propenzi is the only company that can supply all the machinery required for the entire ACS wire manufacturing process, which includes:

- **CCR Al rod line**
- **Pro-Form line**
- **Steel Rod Drawing Machine**
- **Wire Drawing Machine for processing the ACS wire**
- **Pay-off; and take-up;**
- **Wire Stranding Machine if required**



Pro-Form Lay-out

The aluminium clad steel application will become extremely important in the very near future considering the efforts made by the cable makers to push the use of ACSR/ACS, since the bimetallic conductor resolves many of the problems typical of ACSR wire such as galvanic corrosion and sparks.