ROTARY CASTER

The competitive technology for the continuous negative grid production process.
The gas heated steel melting crucible is of open type to simplify the cleaning and is equipped with a level sensor to control the lead level inside the pot. The integrated delivery pump for molten lead alloys, with temperature up to 600°C, is provided with an adjustable flow control system. The unit also features a robust chain conveyor for lead storage and transportation equipped with a limit switch to feed the ingots one by one.

ROTARY CASTING UNIT
The continuous casting of the grid mesh is performed by a water cooled wheel driven by a Variable Frequency Drive in order to be synchronized with other units of the line. The lead is fed to the casting wheel by a specifically designed rotary shoe which is applied to the wheel itself. The volume of cooling water is automatically adjusted in order to keep the casting wheel at a pre-set temperature. Two rollers drive out the mesh from the casting wheel to the trimming and coiling units through a water cooling and flash burning system.
It is composed of a rotary table where the mesh is horizontally coiled onto a properly designed pallet. When the coil is completed, the trimming unit starts the cutting of the mesh into scraps. In the meantime, the operator unloads the completed coil with a forklift and replaces it with an empty pallet. When the new pallet is positioned, the operator actions the strip coiling cycle again. When the trimming unit stops, the operator manually drives the mesh for the first winding revolution.

**SCRAP RECOVERY SYSTEM**
Conveyor belts transfer the scraps, coming from the trimming unit, back to the melting furnace.

**TRIMMING UNIT**
The unit cuts the grid mesh into small pieces to be easily returned to the furnace in case of alarm or during the coil changeover.

- **FULL FRAME GRID**
- **THIN AND LIGHT NEGATIVE GRID DESIGN**
- **SINGLE OR DOUBLE GRID WIDE CONFIGURATION**
- **IN AND OUT LUG DESIGN**
- **SUITABLE FOR ANY LEAD ALLOY**
- **SUITABLE FOR ROUND-CORNER GRID DESIGN: NO SHARP CORNERS PIERCING THE SEPARATOR**
**TECHNICAL DATA**

**OVERALL DIMENSIONS:**
- Width: 5,400 mm
- Height: 2,900 mm
- Length: 10,000 mm

**PRODUCTION SPECIFICATIONS:**
- Throughput: 1 ton Cast Grid/hour
- Cast Width: up to 300 mm
- Grid Thickness: 0.75 up to 1.4 mm

**ELECTRICAL REQUIREMENTS:**
- Voltage: 400 V, three phases + N (or as required)
- Frequency: 50 Hz (or as required)
- Installed Power: 40 kW
- Average Consumption: 20 kWh

**COMPRRESSED AIR:**
- Pressure: 0.6 MPa (6 bar)
- Installed: 40 Nm³/h
- Pipe Connector: 3/4” gas
- Average Consumption: 20 Nm³/h

**EXHAUST REQUIREMENTS:**
- Suction Flow Rate: 6,500 m³/h

**TAP WATER REQUIREMENTS:**
- Pressure: 0.12÷0.15 MPa
- Average Consumption:
  - Water Supply: 5m³/h
  - Temperature: 25÷30°C

**CHILLED WATER REQUIREMENTS:**
- Pressure: 1.5÷2 bar
- Average Consumption:
  - Water Supply: 17 m³/h
  - Input Temperature: 12°C
  - Output Temperature: 17°C

**LEAD POT GAS REQUIREMENTS:**
- Installed: 160,000 kcal/h
- Type of Gas: Natural Gas or LPG

**NITROGEN REQUIREMENTS:**
- Pressure: 0.2 MPa
- Installed: 2.5 m³/h

**FLASH BURNING REQUIREMENTS:**
- Oxygen Bottle with Pressure: 0.4-0.5 MPa (min-max)
- Natural Gas Bottle or LPG Bottle with Pressure: 0.2÷0.25 MPa (min-max)