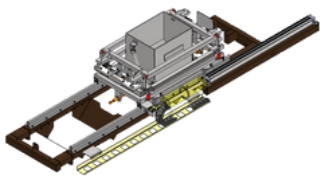
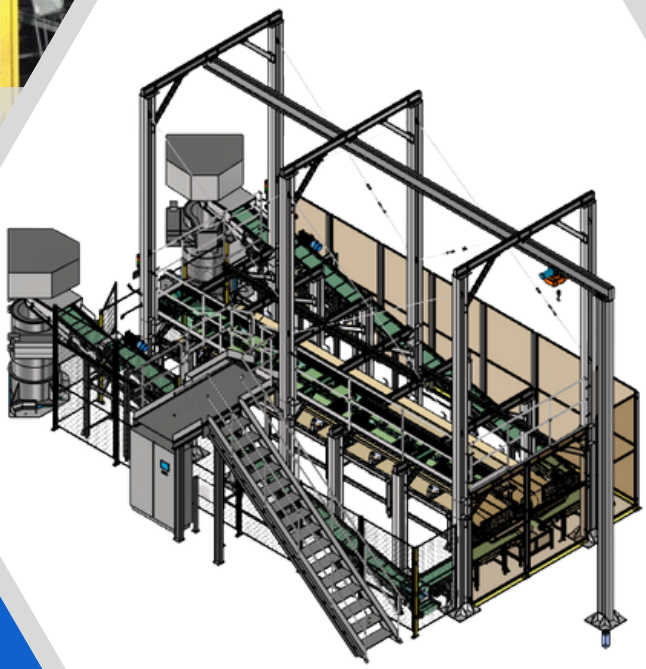
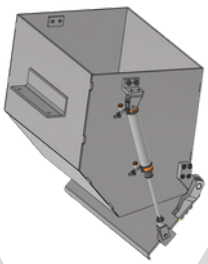
Teknomatik







DOSING LINE FOR REFINING ADDITIVES FOR CAST IRON

Automatic preparation of additives, portioning and dosing directly into casting ladles

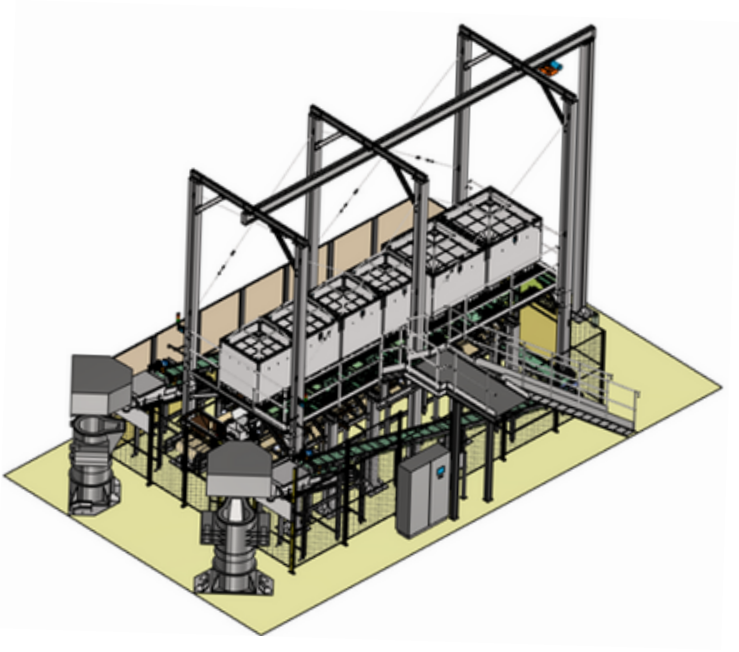
Teknomatik
INDUSTRIAL AUTOMATION
MECHANICS, ROBOTICS AND PRODUCTION OF MACHINERY

Teknomatik Europe Sp. z o.o.
Jasienica 829, 43-385 Jasienica
sales@teknomatik.pl, Vat-ID: 9372717555

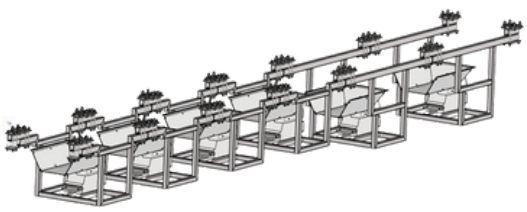
www.shop.teknomatik.eu
www.teknomatik.eu

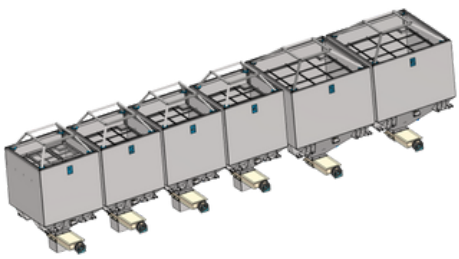
Dosing line for refining additives for **cast iron**

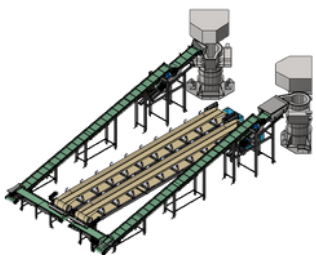
The **additive dosing line i**s designed for automatic portioning and **dosing of additives** for refining cast iron, which are delivered directly to the casting ladles by means of a **belt conveyor system.**
The support structure of the line is made of a frame of **rolled steel profiles**, on which **six tanks** for additives with a capacity of 1.5 m3 and 3.5 m3 are installed.
A dosing system is installed **under each tank**, enabling the preparation of additive portions ranging from 0.25 to 30 kg.
This system **allows additives** to be unloaded onto two **independent conveyor lines** (ST1 and ST2), ending with two casting ladle docking stations.
A mobile chain hoist with a **lifting capacity** of 2000 kg is mounted on the support structure, enabling replenishment of additives in each of the tanks.
The minimum quantity of additives is indicated on the operator panel.
The line operator programs the additive recipe (type and quantity) depending on the production program and declares the conveyor lines on which unloading is to take place.



DEVICE CONSTRUCTION		
Support structure for a dosing station		
Dosing line tank assembly		
Dosing mechanism assembly		
Weighing and separating unit		
Dispenser container set	Weighing and separating unit frame	
Belt conveyor system		
Warehouse conveyors	Intermediate conveyors	Conveyor system with dosing head







ADVANTAGES

- **fully automated dosing cycle;**
- **elimination of manual work related to weighing and pouring additives into hot casting ladles (elimination of health and safety hazards);**
- **full control over the amount of additives dispensed from each tank;**
- **automatic control of each step of the dosing cycle;**
- **elimination of operation in the danger zone;**
- **reduction of the dosing cycle to 4 minutes.**

DESCRIPTION OF OPERATION
The machine's operating cycle proceeds according to the following diagram:
Weighing the dose of additives into weighing tanks in accordance with the specified dosing parameters
When measuring the dose for station ST1, the scales move to the ST1 side of the machine. Dosing at station ST2 does not require the scales to move, as it is located directly under the material feeders.
Dosing of additives onto the conveyor belt
Transfer of material to the lifting conveyor. Additives await the arrival of a forklift truck with a vat
Material dosing into the vat triggered by a control box located in the driver's cab of the forklift truck
Removing the vat and pouring additives with molten metal

TECHNICAL SPECIFICATION	
Basic parameters	
Electric power supply	400VAC, 50Hz
Installed capacity	11 kW
Compressed air supply	0,55 – 0,8 MPa
Dimensions (W x D x H)	13650 x 6300 x 7650 mm
Weight	34 000 kg
Energy connection parameters	
Electric power supply	- voltage: 400 VAC + PE, 50 Hz - recommended protection: C circuit breaker, 40A - min. wire cross-section: 10 mm2
Pneumatic power supply	- air pressure: 0.55–0.8 MPa - min. connection cross-section: Ø 12 mm (internal)