



# FUNDIDORES

FUNDICIONES FERREAS Y NO FERREAS EN ARENA, COQUILLA Y FUNDICION A PRESION



## ALTOS HORNOS DE MEXICO

Altos Hornos de México (AHMSA) will invest US \$ 1 billion over the next two years to build new processing plants in the states of Coahuila and Durango.

### INGOT FOR FOUNDRIES



CUSTOM with stand at MEXICO FOUNDRY CONGRESS 2017.

Contact: sales@customingot.com

### SPAIN FOUNDRY CONGRESS 2017 - SEPT 28TH 2017 BILBAO

Every year the most outstanding Foundry and Die Casting professionals meet in Bilbao.

See video at <https://www.youtube.com/watch?v=TNosJ4Me7jw>

SPAIN Foundry Congress 2017 is Sept 28th 2017. 2017 Congress is the 7th edition, after 2011, 2012, 2013, 2014, 2015 and 2016 events, all located in the same Congress Center and Hotel in Bilbao, the most dynamic area of Spain for investment.

The audience is composed of professionals of the main Spanish foundries : FAGOR EDERLAN, GERDAU, NEMAK, CASTINOX, SAPA PLACENCIA, JEZ, SUÑER, SEAT GEARBOX del PRAT, ANTOLIN, ALSTOM, AMURRIO FERROCARRIL , KONIKER, UIPOS, CISA, EDERTEK, FUCHOSA, MFA, OCA, SCMFONDERIE, BRAVO ENTERPRISES, COFUNDI, COOPERATIVA AZCOITIANA, FAED, OLIZABAL Y HUARTE, JEZ SISTEMAS FERROVARIOS, SHANDAR TECHNOLOGIES, SPOOL SISTEMAS, TABIRA, TECNALIA, VILASSARENCA,

URKO ASE, GABI SA, GRUPO ANTOLIN, CIE AUTOMOTIVE, FESIL, FUNDICIONES ACEROS ESPECIALES D SL- FAED ... present in previous events

#### STAND is 390 euros

Including table, 3 chairs and a poster place.

#### Registration

Inscription rights: 95 euros includes coffee break, lunch, documentation.

Online registration at <http://metalspain.com/standfundipaypal.html>

Congress Center and Hotel  
BARCELO NERVION\*\*\*\*

Room 85 €  
Bilbaonervion.res2@barcelo.com

SPAIN Foundry Congress 2017 Sept 28th 2017 – BILBAO -  
Info <http://metalspain.com/foundry-bilbao.html>  
[foundry@metalspain.com](mailto:foundry@metalspain.com)

### SAVING MONEY WITH YOUR OWN SAMPLE PREPARATION.

LAARMANN Group BV has developed an efficient system for sample preparation in the steel industry. With this system less material is needed to be send out for external analysis. This provides a mayor saving in material costs. Additionally the system simplifies the preparation process in a way that the amount of samples can be increased resulting in a quality improved of the production process.

The determination of the quality from the purchased or produced goods is depending on the way a representative sample is taken and the preparation of this sample. In-line sampling is crucial to monitor and control the production process. Incorrect taken samples or samples processed in an incorrect way will lead to false analyses, resulting in goods being approved (false positive) or declined (false negative) wrongly. In the last nine years LAARMANN Group BV has specialised itself in advising, designing and building solutions for representative sampling and processing of bulk materials.

#### Implementation

LAARMANN Group B.V. strongly encourages (bulk processing) companies to implement their own sampling process instead of outsourcing it. Outsourcing this process creates many expenses, just think about the amounts of product that are lost during the process.

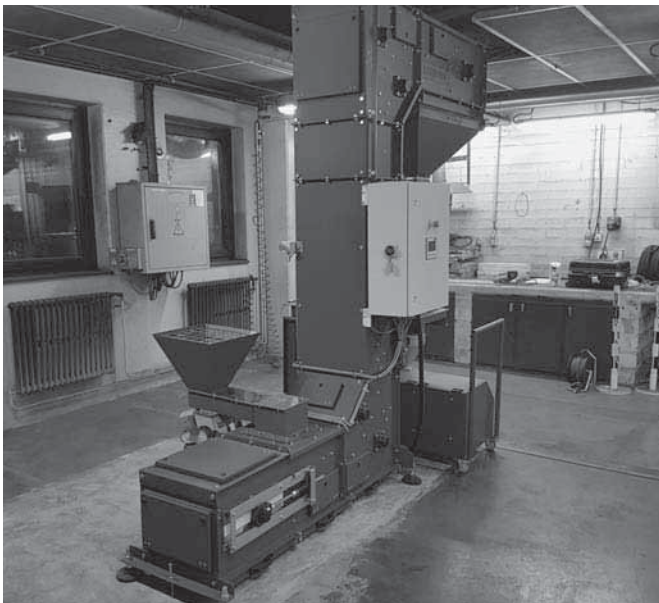


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To ensure that an external company has a representative amount of material the companies need to send dozens of kilograms, where for the actual chemical analysis they require only a few hundred grams. Apart from the questions whether the external company produces a representative sub-sample, the companies never see the remaining material (the reject) again. The question is what happens with this, often, costly material.

In this way, especially when there are big quantities of precious material, it is most preferred that companies process their own samples. With a good sample preparation process, the amount of sample that needs to be send for analysis can be reduced from dozens of kilograms to a few hundred grams. Processing the samples in house will make it possible to take multiple samples to determine the quality of the bulk even better. Companies who successful implement this system not only reduce their material cost but also their transport cost.



## Steel industry

LAARMANN Group B.V. developed an efficient and reliable system for sample processing of raw materials. In this specific case we look at the production of Stainless steel. To create stainless steel you add precise amounts of Chrome, Nickel, Titanium and Molybdenum to Iron. These materials, who represent high value, are bought as Ferroalloys.

Correct determination of the metal content within these alloys is crucial when producing stainless steel. A shortage of certain elements will lead to an inferior quality of stainless steel, while an excess will only increase the costs of the production.

## Size reduction

To determine the qualities of the Ferroalloys the pieces of alloy (60-70 mm) are sampled and then reduced. The steel company used to reduce the 25 kg of materials using a jaw crusher (reduction down to 10 mm). After the primary crushing the operator needed to grab the material from underneath the machine and put it in a rolls crusher. Here the product was further reduced to grit (< 2mm). The sample was send over to an external laboratory for analyses.

## Push off a button

The installation of LAARMANN Group BV has simplified the size reduction process for this steel company to a mere push of a button. Now since there is no more need for the operator to lift any heavy materials or perform multiple actions the process is more efficient, resulting in more samples and an overall higher quality.

The operator puts 25 kilograms of material in the inlet funnel and starts the process at the central control box. A vibratory feeder underneath the inlet funnel evenly feeds the bucket elevator. The bucket elevator lifts the material and feeds the jaw crusher (type LMFC250) which reduces the material to < 2mm.

The grit material goes, using a flexible connection, to a rotary sample divider which divides the sample in ten equal parts of 2,5 kilograms (sub samples). The alloys have a density between 3 and 8 kg/liter, giving a partial sample volume of 500 to 800 ml.

This sample will be pulverised in a ring mill (type LM2000) to reach the desired end finesses of 125 micron. The external lab needs 12 to 15 grams of this product to make it into a tablet that can be analysed with an XRF-machine (X-ray fluorescence).

## Cleaning

The funnel above the LMFC250 jaw crusher can be moved aside so that the installation can handle smaller quantities of material without contamination of the bucket elevator. Sliding the funnel aside will make the crusher easy accessible for cleaning.

The bucket elevator has multiple hatches which can be opened for cleaning the buckets. However cleaning the bucket elevator will not be needed on a regular bases, due to the fact that the material entering the bucket elevator is quit big, there will not be a lot of dust.

The integrated rotary sample divider is mobile so it also can be used as a stand-alone machine in the lab. Thanks to the compact design of this installation the space of the



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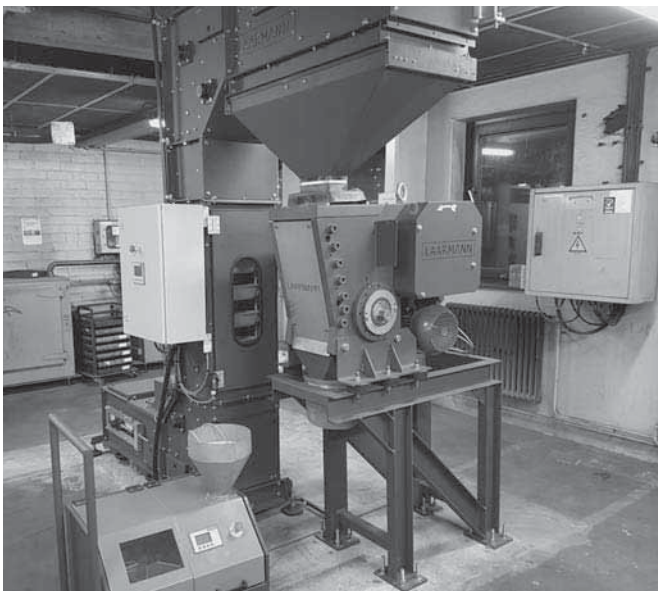
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laboratory, which often don't have much space to begin with, is used optimally.

## Advantages

The advantages of the LAARMANN-installation for this steel company can be summarized as:

- The amount of material that needs to be send to an external laboratory is reduced from 25 kg to a mere 400 gram. In this way the loss of costly material is very limited.
- The working conditions of the operator are considerably improved. His work load has, thanks to the sample installation, been reduced and he is now wider available for different tasks.
- The efficiency of the installation allows more samples to be taken and therefore improving the overall quality and representability of the process.
- A more accurate analysis of the purchased good triggers the suppliers to deliver the high quality raw material. Inferior delivered quality will be spotted in an early stage.
- The installation can operate in an oxygen free environment to eliminate the chances of explosion which is common for some Ferroalloys.



## From bulk to sample

LAARMANN Group BV in Roermond realises unique total solutions for sampling and sample preparation. Instead of limiting themselves to providing laboratory equipment, the company offers a complete assessment of the sampling processes for a client. Specialist investigated and take under review the current technics and procedures. This way they map the entire process of the sample in one day, starting with receiving the material in bulk which arrives

by ship, train or truck up to final analyse of the sample. Only based on the right insight it is possible to advice companies on how to prepare and take a representative sample.

## FOUNDRY & DIE CASTING CONFERENCE - NOV. 15TH 2017 – PUNE, INDIA

<http://metalspain.com/india-foundry.html>



India is 1,300,000,000 people. The highest GNP growth of Asia. Producing more than 4.000.000 vehicles

Pune is home to one of TATA MOTORS, BAJAJ AUTO, DAIMLER AG, MAN, THYSENKRUPP, FIAT INDIA, TREMEC, SKF, JOHN DEERE, AMV MOTORS, BHARAT FORGE, EATON, MAHINDRA & MAHINDRA, GENERAL MOTORS, VOLSKWAGEN, MTU Friedrichshafen ...Apart from the auto giants, a large number of engineering, electronic, and electrical industries have set up bases. The industrial township of Pimpri Chinchwad, adjacent to the main city, is dotted with over 4,000 manufacturing units.

## Call for Papers

The audience is composed of professionals of Indian foundries and die casters.

Presentation is 20 minutes + 10 for questions. Powerpoint. Please send title of the presentation for approval

Stand 390 euros

You can take advantage of the audience and the quality of the papers by renting a stand

Including a table ( 2 ft width x 6 ft length) , 3 chairs and a poster.

Reservation package stand : euros 390

Upon reception of your payment, your stand is confirmed.

Payment by card, Paypal, Bank transfer in US\$ or Euros

<http://metalspain.com/indiafoundry-paypal-euro.html>

See video [https://youtu.be/chpaoE\\_CyuM](https://youtu.be/chpaoE_CyuM)

## Be present

Inscription rights : euros 95 includes 2 tea-breaks, lunch, documentation.

Payment by card, Paypal, Bank transfer in US\$ or Euros

<http://metalspain.com/indiafoundry-paypal-euro.html>