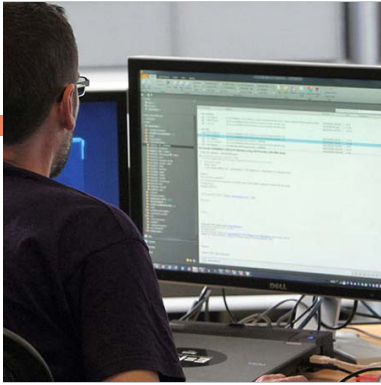




# IRON REMOVAL



## RECOGNIZED KNOW-HOW

The quality of our production has been guaranteed by the long service life of our products which assures of minimal maintenance. In terms of productivity and safety our proven methodology will more than meet your expectations.

Our know-how in the fields of industrial magnetism, linked to our values of service and quality leads to the recognized performance of all Andrin products.

## QUALITY REFERENCES

Our personal commitment is based on our know-how, our idea of service, our technology, and our compliance with deadlines and budgets. Our production favours your productivity, safety and reliability requirements. We analyze and implement all our activities in compliance with your constraints. The following companies place their confidence in us:

### *Steelwork, Rolling Mill*

Arbed Saarstahl  
Arcelor Mittal  
China Steel  
Dillinger Hütte  
Dragon Steel  
Icdas  
Kroman  
Kuey Steel  
Magnitogorsk  
Posco  
Rivagroup  
Severstal  
Sonasid  
Tata Steel  
Thyssenkrupp  
Vallourec  
Voest Alpine

Hoffman  
Hyundai  
Metso Lindemann  
Metso Mineral  
Sandvik  
Voest Alpine  
Vauché  
Venti Oelde

### *Recycling*

Decons  
Derichebourg  
Gde Environnement  
Harsco  
Heilig-Teigen  
HKS  
Normet  
Retem  
Scholtz  
Thyssenkrupp  
TSR  
Yamanaka

### *Engineering*

Alfyma  
Cmi  
Danieli

### *Environment*

Cnim  
EDF Tiru  
Plastic Omnium  
Sita-Suez  
Veolia  
Vinci

### *Material Handling*

Case  
Caterpillar  
Fuchs  
Hyundai  
Liebherr  
Sennebogen  
TP Partners

### *Mines & quarries, Foundry, cement plants*

Calcia  
Lafarge  
Montupet  
SLN



## AN IDEA OF SERVICE

Our specialist multidisciplinary teams are equipped with technological resources suited to best meet your requirements. The results we have obtained guarantee our reputation. Our everyday ambition : to know you, listen to you, understand you, anticipate your needs, be at your service, and satisfy you, our valued customers.

## APPLIED ENGINEERING

We are in a position to get you to take advantage of our capacity for technical appraisal and advice, with a good grip on your company's practical problems. Our design office has skills in metal, mechanical, electrical construction and automatic control and is able to make recommendations, design and assemble, build and provide operating follow-up.

Experience, acquired in a manufacturing world of high quality assurance constraints, guarantees the output and reliability of **Andrin** equipment. We provide you with an optimal service, capable of meeting all your requirements and expectations in magnetic handling plant. During the design, manufacture, assembly and commissioning for use, we are with you at each stage of developing a plant, Our engineers and technicians also make visits to improve your existing plants, define the required investments with you, and recommend cost effective solutions.

**We provide after-sales service all makes and types of devices.**

## IRON REMOVAL

Experience gained in industrial magnetism enables us today to be the Iron Removal Specialist in continuous flow bulk products. We offer an extensive range of products suited to all your iron removal needs. Our ferrous metal magnetic and electromagnetic separators are used on all five continents.

### ■ Why remove iron ?

The removal of iron from transported products within the context of continuous handling is required when it is necessary to :

#### ■ *Protect*

Magnetic equipment protects production tools like crushers, calendaring machines, presses, grinding machines, etc, against magnetic parts able to damage these machines. This protection improves productivity by reducing production stoppages and repairs.

#### ■ *Refine*

Certain products have to be guaranteed free from any ferromagnetic particles or parts, so the iron particles have to be extracted with magnetic equipment. A number of raw materials require a high degree of quality : glass, wood, paper , plastics, chemical products, fertilizer, food-processing products, minerals, coal, etc.

#### ■ *Select and sort*

Our separators are designed for sorting and extracting ferrous parts mixed with other non-magnetic materials. The applications are numerous, and apply to many products : coal, cement, sand, clinker, household waste, etc. Ferromagnetic parts recovered in this way can be upgraded by the recycling industry , to which the products of Andrin Iron Removal are fully appropriate.



The magnetic unit is permanent or electromagnetic depending on the desired power .

### ■ Une conception industrielle

Our equipment is suitable for each specific plant requirement. Their industrial design, nevertheless, enables you to benefit from standardization of their component parts. Maintenance is made easier. Our experience in the iron removal field makes the Andrin trademark a reference in terms of **quality, output and reliability**. Moreover, some of our equipment is offered to you with patents, the fruit of our design and innovation, a result of listening to your customers.



### ■ An appropriate range

Our range of products has been designed to blend totally with the materials to be processed, the desired sorting quality and your handling line. A table summarizing uses enables you to see the different possible layouts. We offer you four families of equipment :

- Suspension magnets,
- Overbands,
- Magnetic drums,
- Magnetic pulleys.

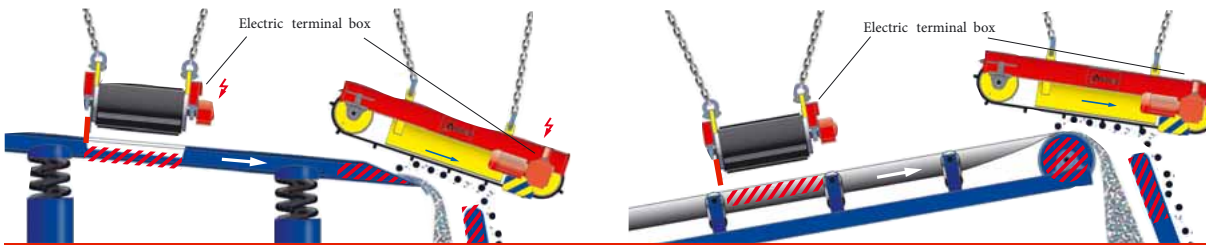
ASP



ASAP



OVBP



OVBAP



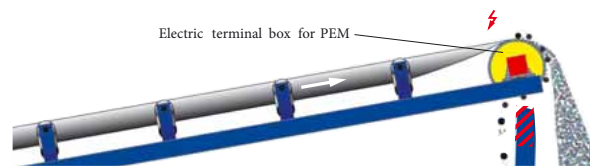
TEME



TMAP



PMAP - PEM



Non-magnetic area

Waste

Ferromagnetic parts

## QUESTIONNAIRE IRON REMOVAL

### CHARACTERISTICS OF THE PRODUCTS MATERIAL TO HANDLE

- |                         |  |                                 |                                     |
|-------------------------|--|---------------------------------|-------------------------------------|
| <b>1. Type</b><br>_____ | <b>2. Flow (m<sup>3</sup>/h)</b><br>_____      | <b>4. Granularity</b><br>_____  | <b>6. Temperature (C°)</b><br>_____ |
| _____                   | <b>3. Density (kg/dm<sup>3</sup>)</b><br>_____ | <b>5. Humidity (%)</b><br>_____ |                                     |
| _____                   |  |                                 |                                     |

### FERROMAGNETIC TO REMOVE

- |                         |                          |                                |  |
|-------------------------|--------------------------|--------------------------------|--|
| <b>1. Type</b><br>_____ | <b>2. Shape</b><br>_____ | <b>3. Max. weight</b><br>_____ | <b>5. Quantity per hour</b><br>_____                     |
| _____                   | _____                    | <b>4. Mim. weight</b><br>_____ | <b>6. Presence</b><br>Continuous ____ Extraordinary ____ |
| _____                   | _____                    | _____                          |  |

### CONTINUOUS HANDLING EQUIPMENT

#### Conveyor belt

- |                                       |   |
|---------------------------------------|---|
| <b>1. Width</b><br>in mm _____        | <b>4. Burden dept</b><br>in mm _____                |
| <b>2. Speed</b><br>in m/s _____       | <b>6. Widht of product</b><br>in mm _____           |
| <b>3. Shape</b><br>_____              | <b>7. Head drum</b><br>Ø in mm _____                |
| <b>4. Incline</b><br>in degrees _____ | <b>8. Steel structure belt</b><br>yes ____ no _____ |

#### Shoot

- |                                     |                                       |
|-------------------------------------|---------------------------------------|
| <b>1. Inside size</b><br>_____      | <b>2. Incline</b><br>in degrees _____ |
| <b>3. Chute</b><br>by gravity _____ | other _____                           |

#### Vibrator

- |  |                                       |
|--|---------------------------------------|
| <b>1. Sizes</b><br>Leng-th _____                             | <b>2. Incline</b><br>in degrees _____ |
| Width _____  | Height _____                          |
| <b>3. Motorization</b><br>Electromeca _____ Electromag _____ |                                       |

### ELECTRICAL INSTALLATION

- |                                 |                                 |                                    |
|---------------------------------|---------------------------------|------------------------------------|
| <b>1. Voltage</b><br>Volt _____ | <b>2. Frequency</b><br>Hz _____ | <b>3. Number of phase</b><br>_____ |
|---------------------------------|---------------------------------|------------------------------------|

Company _____	Dated _____
Address _____	Contact person _____
_____	Title _____
Telephone _____	Fax _____

## OUR KNOW-HOW



### ■ MAGNETIC LIFTING

Magnetic and electromagnetic lifting equipment combines force, durability, reliability, productivity and safety, enriched by numerous undertakings linked to experience gained in all the big traditional sectors such as metallurgy, the steel industry, ferrous recycling, shipyards, and steelwork.



### ■ METAL EXTRACTION

We guarantee results which link performance, reliability and technological solutions, to continuous innovation. Our control of Eddy currents, metal sensing, magnetized compressed air and electrostatic forces enables us to solve numerous cases of non-ferrous metal separation. Using our products, durable solutions can be reached for bulk product sorting in continuous handling.



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