

# Regulator Cetrisa Metal Separators

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## SEPARATION OF IRON METALS BY THE ELECTROMAGNETIC OVERBELT (R-SKM)

### INTRODUCTION

Both iron and non-iron metals make up one of the groups of materials to have a greater presence in waste reduction, since they involve a great worth. Iron metals are the highest percentage elements and are the most easily captured by magnetic fields. Aware of the serious environmental problem, **REGULATOR-CETRISA** has developed a complete line of separation equipment: the **Electromagnetic Overbelt (R-SKM)** and the *Permanent Magnetic Overbelt (R-OMP)*, in order to be able to separate, recycle and recover iron metals.

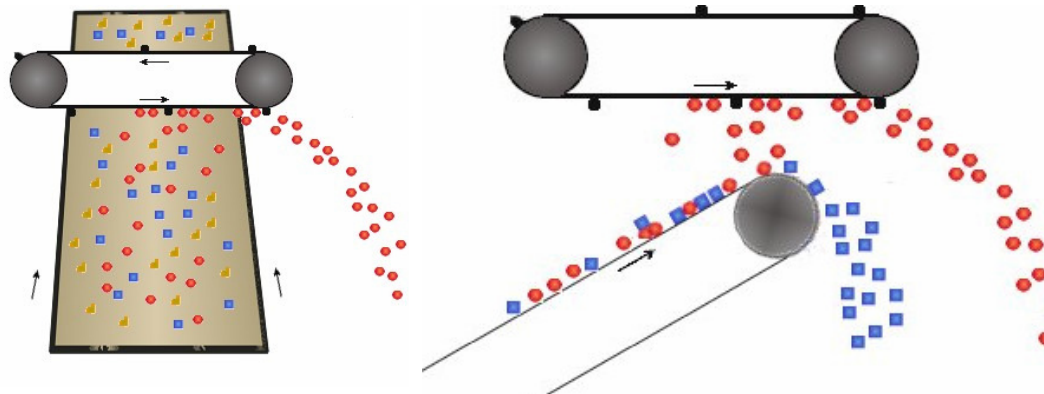
### PHYSICAL PRINCIPLE

The physical principle for the operation of the **Electromagnetic Overbelt (R-SKM)** is based on an electromagnetic field generated by electric excitation energy on a coil that is rolled over a magnetic pole.

The other magnetic pole is found surrounding the coil. A significant excitation on the coil will provoke the magnetic field. This way, iron material that crosses the magnetic field will be attracted to the coil and therefore separated from the rest of the materials.

The magnetic block forms the central part of a small conveyor belt. This belt has plugs or locks to allow the continuous evacuation of any captured iron material.

The Overband is located on the conveyor where the processed material circulates. It can be placed here in either transversal or longitudinal direction. In the transversal direction, the Overband can be located at any point along the conveyor.

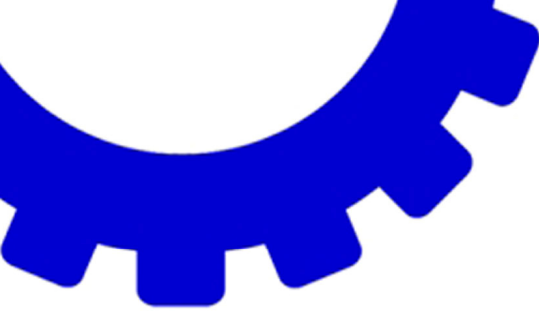


*Transversal Overbelt*

*Longitudinal Overbelt*

When the location is longitudinal, the installation should be done on the head roller of the conveyor to take advantage of the material's parabolic path.

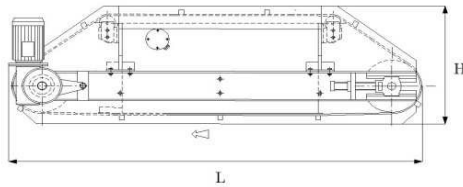
**REGULATOR-CETRISA** offers a wide range of equipment whose electromagnetic circuit is designed and optimized (3D design) to provide maximum magnetic force with minimum power consumption and minimum dissipation.



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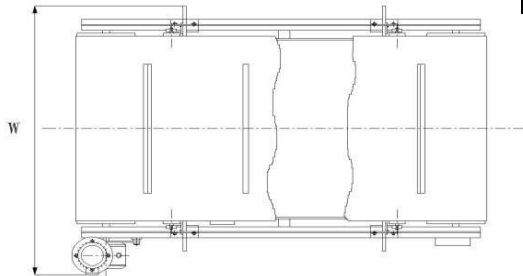
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The **Electromagnetic Overbelt (R-SKM)** is organized by families, according to measurements and magnetic magnitudes. The basic measurements of each family are shown in the following table:



EQUIPMENT	W	H	L
R-SKM 6-	1140	590	1850-2300
R-SKM 8-	1350	645	2050-2600
R-SKM 9-	1475	675	2300-2800
R-SKM 10-	1595	670	2700-3300
R-SKM 12-	1810	765	3000-3700
R-SKM 14-	2050	795	3400-4200
R-SKM 16-	2300	830	3900-4500

*Standard measurements. Other dimensions are also available.  
Contact with REGULATOR-CETRISA for additional information.*



*Basic outline and measurements of the  
R-OMP equipments*

**REGULATOR-CETRISA** uses all of its experience to determine the ideal equipment for every application. Besides its own experience from innumerable applications, the technical department evaluates all the necessary parameters, such as: flow, density, humidity, aggregate grading, etc.

**REGULATOR-CETRISA** offers the possibility of testing materials in its own facilities, where the client can verify the effective separation of the metals. This way, we can ensure satisfactory results.

**REGULATOR-CETRISA**, thanks to its continued investment in R&D&I, offers the best technology for integrating equipment and systems into its processes and Complete Turnkey Installations.

For further information:

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