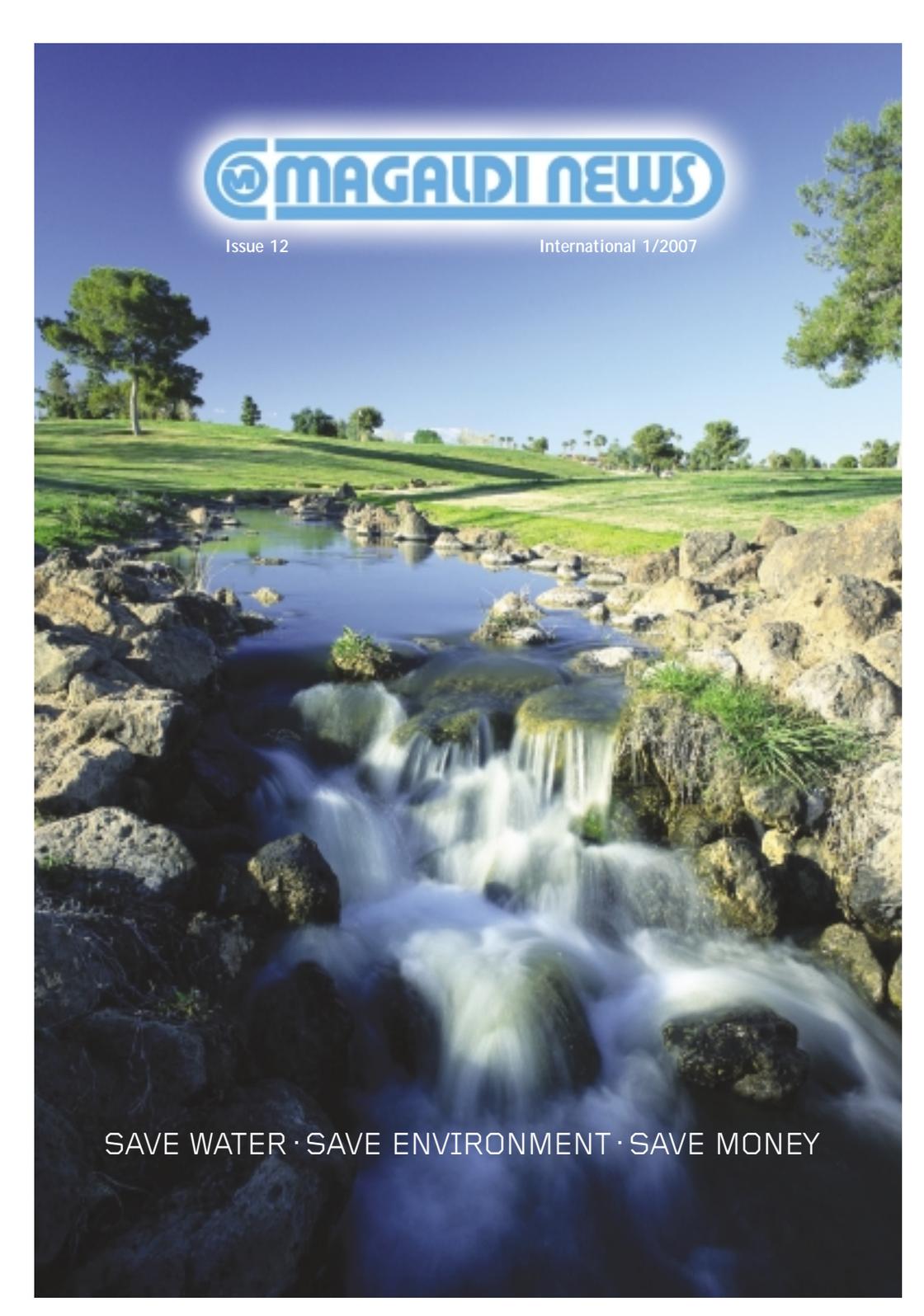


The logo for Magaldi News, featuring a stylized 'M' inside a circle on the left, followed by the words 'MAGALDI NEWS' in a bold, blue, sans-serif font, all contained within a blue rounded rectangular border.

MAGALDI NEWS

Issue 12

International 1/2007

A scenic photograph of a waterfall cascading over dark, mossy rocks in a lush green park. The water is blurred, creating a sense of motion. In the background, there is a large green lawn, several trees, and a clear blue sky.

SAVE WATER · SAVE ENVIRONMENT · SAVE MONEY

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India

Durgapur project: the first MAC[®] System in India

by **Simone Savastano** Area Manager
and **Andrea Schettino** Project Manager

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In early 2005 the Government of West Bengal (India) approved the installation of a new 300MW unit in Durgapur Power Plant. This power plant is located in the north-eastern part of the Indian subcontinent, an area which, despite the presence of the two rivers of Gange and Brahmaputra, has always been suffering from serious problems of water shortages.

In the local power plants these problems have always been empathized by the use of domestic coal which, due to its high ash content characterization, led the existing coal fired units to exploit massive quantities of water in order to discharge their bottom ash. In addition, this abnormal content of ash made it up to now impossible to guarantee the performances of the wet bottom ash removal systems: they have been always suffering from severe dependability problems which ultimately affected the boilers' performances.

In recent years these outstanding problems have been more and more concerning both the ownership of the power plants and the local government. Their solution was not considered a simple one.

In the meantime, as more than twenty years passed since Magaldi invented, produced and installed its first dry bottom ash system, the Magaldi Group was learning more and more experience in the field of dry bottom ash extraction. All problems related to bigger and bigger installations were faced and solved, rising Magaldi up to more than 90 installations all over the world. The backlog of experience gained in this long time, together with the continuous thrust on improvement and innovation, eventually led Magaldi in the position of being the only company in the world able to offer and guarantee a dry bottom ash extraction system even for

the worst operating conditions, as are those of the Indian coal fired units. The natural consequence of it all was the award to Magaldi Power of its first contract in India, for the new Unit # 7 of Durgapur Thermal Power Plant.

The owner, Durgapur Project Ltd. awarded to the Chinese company Dongfang Electric Co.Ltd. the activities on the new unit on EPC basis. In December 2005 Magaldi Power was awarded the turn-key supply of the dry bottom ash extraction system from Dongfang Electric Co. Ltd.

The task was massive: not only the bottom ash had to be dry removed and cooled, but also the economizer's ash would have to be handled by the same dry handling system. This led the Customer to require Magaldi the ability to handle an outstanding total of 42,8 tons per hour ash, with the fly ash from the economizers discharged onto the dry bottom ash extraction system. The installation work began in November 2006, as soon as free access under the boiler area was granted by Dongfang in order to start with the major

civil and mechanical works. Both Magaldi handling systems will be ready to accept the first Indian ash by the end of May 2007. As the water savings provided by the MAC[®] System will be massive, the Indian power sector is looking at the results obtained with the implementation of this "new" technology for the Indian market.

In the meantime the construction of the new Unit # 7A of Durgapur Thermal Power Plant has been authorized by the local authorities. Magaldi is by now involved in the negotiations for the supply of the dry bottom ash system for this new unit.



Client	Dongfang Electric Corporation
Power plant name	Durgapur Thermal Power Plant
Power plant owner	The Durgapur Projects Ltd.
Unit #	7
Capacity	1 x 300 MW
Bottom ash rate (design)	t/h 14,36
Bottom ash rate (max normal)	t/h 21,29
Bottom ash rate (soot blowing)	t/h 22,29
Bottom ash temperature at final discharge	200 °C
Contract awarded to Magaldi	Dec 05
Start up of on site activities	Nov 06
Scheduled completion of activities	June 07 (tentative date)

Japan

J-Power decides for the dry bottom ash handling system on unit #2 at Isogo power plant

by **Celestino Agresta** Area Manager

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Kawasaki Plant Systems Ltd., Magaldi's licensee for the Japanese market for the past 13 years, has achieved the important target to convince one of the most important Japanese power producers: J-Power, Electric Power Development Consultant, to adopt the MAC® for Isogo Power Station.



For both of Kawasaki and Magaldi is extremely significant, because, only after few months of operation on Unit #1 equipped with the Submerged Chain Conveyor, such an important customer like J-Power has decided to adopt the dry system for Isogo #2.

Isogo #2 is a 600 MW boiler to be built by Ishikawajima-Harima Heavy Industries Ltd. The start-up is forecasted in 2008, the system configuration is identical to the other units installed and

operating in Japan since 4 years already (Tomatoh Atsuma Power Plant 1 x 700 MW, Shinko Kobe Power Plant 2 x 700 MW). The only exception will be the Mechanical Seal, which will be installed for the first time in Japan.

The mechanical seal is a maintenance free expansion system replacing the old style hydraulic seal. It is absorbing the boiler thermal expansion downward and laterally, there is zero water usage and the selected layer of materials is resistant up to 1400 °C. This design is a stan-

dard in Magaldi plants and the first ever installed has been in operation for more than 8 years now.

The ash is extracted and cooled by the MAC® system, the first crushing stage is reducing the particle size at a maximum 80 mm, and the Postcooler conveyor will transfer the bottom ash to the pulverization station. The milled ash will be then transferred to the final silo by a pneumatic handling system. As per the License Agreement between Magaldi and Kawasaki, Magaldi is providing the engineering and the main equipment only (Mechanical Seal, Bottom Doors, MAC® extractor, Post cooler conveyor), the balance of the plant and site services are provided by Kawasaki. Isogo #2 will be the 5th Unit equipped with a MAC® system in Japan and the 1st supplied to a Japanese Public Electric Power Company, the other units have been supplied to Independent Power Producers.

Client	Electric Power Development Co. Ltd - J Power
Power plant name	Isogo Thermal Power Plant
Unit #	2
Capacity	1 x 600 MW
Bottom ash rate (design)	t/h 3,6
Bottom ash rate (max normal)	t/h 12,6
Bottom ash temperature at final discharge	150 °C
Contract awarded to Magaldi	Dec 05
Start up of on site activities	Dec 07
Scheduled completion of activities	June 08 (tentative date)

Republic of Korea

Magaldi increases MAC[®] sales

by **Celestino Agresta** Area Manager

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The MAC[®] systems in Taean units #7 and #8 have started their operation in September 2006 successfully. In October 2006 an official presentation of the systems in operation to representatives of all major public generation companies has been organized and held at Taean site.



After the first 2 units shipped to the Republic of Korea for Taean Project (Units # 7 and #8, 2 x 500 MW) owned by Korea Western Power Co. Ltd., other two of the five Generation Companies decided to adopt the Magaldi Dry Bottom Ash Handling System, MAC[®].

-Korea South-East Power Co. Ltd. will install the MAC[®] systems at Yonghung Power Station (units #3 and #4 - 2 x 870 MW).

-Korea Southern Power Co. Ltd will install the MAC[®] systems at Hadong Power Station (units #7 and #8 - 2 x 500 MW).

The new units at Yonghung Power Plant mark an important step for Magaldi, because they will be the largest units the MAC[®] has ever served: 2 x 870 MW., another important reward to the high reliability and dependability of Magaldi technology, as the unique reliable Dry Bottom Ash Handling System.

The first unit for Yonghung has been inspected and tested in Magaldi work-

shop on November 2006 witnessed by Kawasaki Plant Systems and Halla. The equipment of the first unit has been shipped to Korea and in the middle of 2007 its first operations will start.

The plant configuration at Yonghung is similar to Taean including:

- Mechanical Seal
- Bottom Ash Hopper
- Bottom Doors
- MAC[®] conveyor
- Primary Crusher
- Postcooler Conveyor
- Storage silo

The plant has been sold by Magaldi's Licensee for the Japanese market: Kawasaki Plant Systems Ltd and they will provide all the necessary balance of the plant.

For the Hadong Power Plant Units #7 and #8, Magaldi Power S.p.A. has started a direct marketing activity, during the second half of 2006 with the help of Total Tech Corporation (812 WONIL BLDG., SAMSUNG-DONG, KANGNAM-GU, SEOUL, Ph. +82 2 512 3291, Fax +82 2 512 3290, Contact

Person: Mr Y.C. Shin).

The President of the Company, Mr Y.C. Shin, is personally involved in representing Magaldi's products for dry bottom ash handling from pulverized coal boilers and circulating fluidized boilers as well. Magaldi have also enjoyed the visit of several Korean clients in Italy escorting them to visit some among the most important references in our country: Fusina Power Plant, Sulcis Power Plant and Flumesanto Power Plant.

Hadong Power Plant Units #7 and #8 have been ordered during the early part of 2006 and the engineering works have been completed. The delivery of the equipment is scheduled for the middle of 2007 for unit #7 and late 2007 for unit #8.

MAGALDI MRS® (Mill Rejects System)

by **Rocco Sorrenti** *R&D Manager*
and **Vincenzo Cianci** *R&D Engineer*

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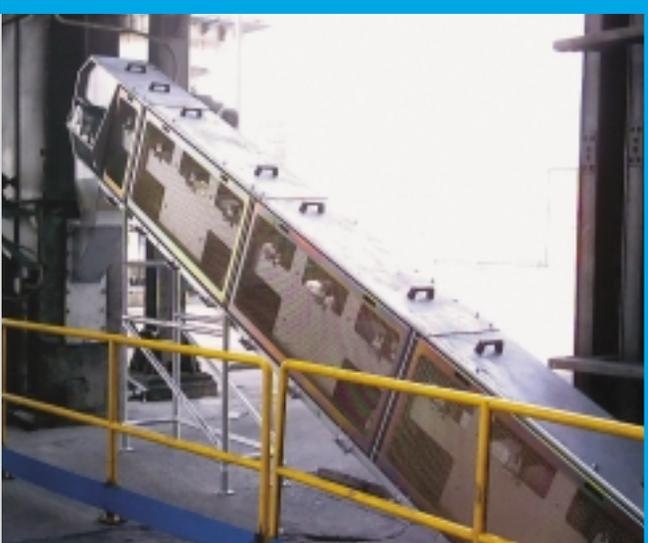
THE MAGALDI Mill Reject System (MRS®) is a patented system designed for dry conveying of pyrites and other rejects from coal mills.

Foreign elements contained in the raw coal, such as pyrites or metallic parts, which have a higher density and grinding index than the coal, are not reduced to fine particles and rejected by the centrifugal force out of the mill's grinding ring and driven to a draining pipe. Mill's rejects, therefore, are collected by buffer tanks before the final stocking.

In the sluice systems for mill rejects' handling, due to the use of water, there are many aspects that need to be carefully evaluated in the operations such as:

- Water consumption;
- Power consumption for high pressure pumps operation;
- Planned and un-planned maintenance, due to the corrosion, wear and clogging along the sluicing line;
- Dewatering operations on the final storage silo;
- Need for treatment of sluicing water contaminated by coal.

These aspects lead to a high operating cost of the system in terms of water and energy consumption, man-hours and materials for maintenance, control for the environmental impact of



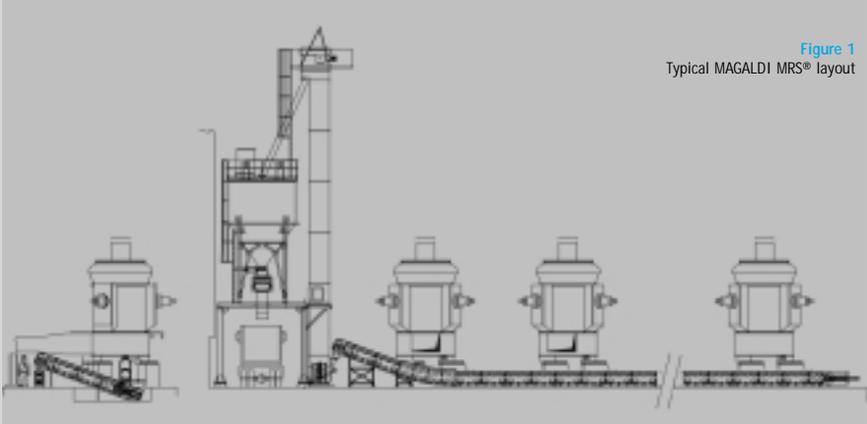


Figure 1
Typical MAGALDI MRS® layout

the system.

MAGALDI MRS® is a completely mechanical dry system for mill rejects conveying from the buffer tanks to the final silo. It is made of the following main equipment:

- 1 Superbelt conveyor: receives pyrites rejected from the coal mill trough a vibrating feeder and a buffer tank. The Superbelt® is a Magaldi proprietary technology that has been used for over 30 years in various applications involving hot and abrasive material handling. The belt is formed by partially overlapping steel pans bolted to a steel wire mesh. The belt runs on supporting rollers and the lateral side walls of the plates allows the belt to keep the material confined, avoiding spillage and lateral overflow.
- 2 Bucket elevator conveyor: raises the material coming from the Superbelt conveyor up to the storage silo.
- 3 Storage silo: allows a storage of mill's rejects. The outlet of the silo is provided with a valve and a vibrating feeder for truck loading.

The above mentioned components are displaced according with the layout

shown in figure 1.

Typically, the MAGALDI MRS® is designed with a normal pyrite production of 2 t/h with a peak of 4 t/h, even if pyrites production for each mill usually does not exceed the 0.5 t/h. Sometimes, in cases of boiler's shut-down or other emergencies at the coal mill, it is necessary to stop the mill and to clear it out from all the material inside (coal, pyrites and other foreign elements). This occurrence is called "mill trip". Due to the reliability of the system and its capability of working in overloading conditions, the MAGALDI MRS® system allows the emergency discharge of the coal mills during the *mill trips*. The rejects from the mills, conveyed by the MRS® system, are frequently contaminated by coal dust. Besides the system, when operating during the mill trips, conveys large quantities of coal. The presence of coal dust inside the casing is carefully evaluated in the design of the MRS® system by a detailed fire and explosion risk analysis. The analysis yields to the adoption of many safety measures against fire and explosion hazards, such as:

- Design parameters optimization in

order to minimize coal dust releases, sparking, surface overheating and coal dust lifting;

- Fire extinguish system, enabled by temperature probes placed along the system;
- Venting system, in order to lower the effects of explosions;
- Prevention of the formation of explosive atmosphere by the use of inert gases, such as CO₂ or N₂;
- Implementation in the logic control system of all the procedures for safety devices activation against fire and explosion.

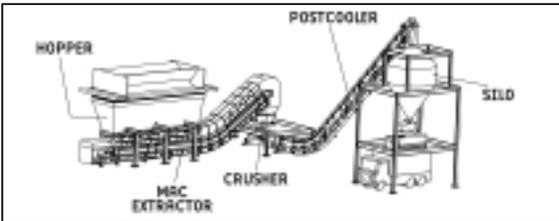
Due to the intrinsic reliability and flexibility of the system and the safety measures improved on it, MAGALDI MRS® system can be operated in a fully automatic way, meaning zero manpower costs and negligible risk for people. Besides, due to the absence of water for conveying, the system can be operated in accordance with all the policies for environmental issues control and, on the other hand, have low costs in terms of water consumption, water treatment and power demand for sluicing.

Australia

First Contract for Magaldi Power Pty Ltd

by **Peter Siers** *Magaldi Power Pty Ltd General Manager* peter.siers@magaldi.com
by **Celestino Agresta** *Area Manager* celestino.agresta@magaldi.com

Client	IHI Engineering Australia Pty Ltd
Power plant name	Bluewaters Power Plant
Power plant owner	The Griffin Group
Unit #	1
Capacity	1 x 208 MW
Bottom ash rate (design)	t/h 4
Bottom ash rate (max normal)	t/h 9
Bottom ash temperature at final discharge	150 °C
Contract awarded to Magaldi	Mar 07
Start up of on site activities	Jan 08
Scheduled completion of activities	June 08



While Magaldi has been active in Australia for some years, installing MAC® systems at Wallerawang Power Station Units 7 and 8, and Callide ‘B’ Power Station Units 1 and 2, it was only in August 2006 that the decision to establish a full time local representation was made.

Now, just five months later, the first EPC contract has been received for a new power station to be constructed in Bluewaters, near Collie in Western Australia.

The power station is being constructed by IHI Engineering Australia Pty Ltd, on behalf of the owner, The Griffin Group. It will be operated by Transfield.

The new Power Plant will be generating 208 MW at a first stage, but the plan is to have an additional twin unit in the short term. The system will consist of a MAC® extractor connected to the boiler through a Mechanical Seal and an Ash transition Chute. This installation has reduced head room available, and bottom doors could not be installed within the available space. The MAC® will discharge through pre-crusher and primary crusher to a post cooler and from there to a silo, which in turn will discharge to trucks.

The MAC® – Magaldi Ash Cooler technology was chosen over other alternatives because it offered the most attractive whole of life costing, as well as using no water (a scarce and precious resource in Australia) and delivering energy efficiency.

The equipment will be delivered at site in early 2008 and from there the site erection activities will commence. The plant Commissioning is scheduled to start in July 2008.

Poland

New Magaldi Superbelt® conveyor for de-gating and casting sorting

by Alberto Lalia *Sales Engineer*

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The main product of Magaldi Group is the **Magaldi Superbelt®**, a robust and dependable steel pan conveyor based on a patented technology.

The **Magaldi Superbelt®** typical foundry's applications are:

- Casting cooling
- Casting sorting
- De-gating
- Castings and sprue transportation
- Loading/unloading shotblasting
- Moulds transportation
- Hot core sand transportation

Magaldi has recently developed two new versions of the Superbelt®, respectively the "PR type" and the "PRZ type".

Thanks to the absence of the lateral sidewalls, both conveyors are designed to improve the working conditions during the operations of de-gating and sorting.

In fact, their flat surface allows the operators to drag the castings towards the lateral chutes of the belt without lifting them, maximizing this way the safety and comfort of the operators.

The main difference between the PR and the PRZ type is in the way the pans overlap each others. The PR type is suitable for manual sorting operation while the "PRZ type" is suitable for automatic casting sorting after the shotblasting by means of "deviators" or "ploughs" installed on it.

Recently, a Magaldi Superbelt® PRZ



EQUIPMENT DATA

Superbelt type: PDR/AC 1208-108
 Centre distance: 16000 mm
 Width: 1200 mm
 (horizontal molding line)
 Installed power: 2,2 kW

PROCESS DATA

Material: castings (brake disks)
 Capacity: 24 t/h
 Molds dim: 1100 x 1120
 Temperature: 30 °C

EQUIPMENT DATA

Superbelt type: PRZ/AC 1208-108
 Centre distance: 25000 mm
 Width: 1200 mm
 (horizontal molding line)
 Installed power: 3,0 kW

PROCESS DATA

Material: castings (brake disks)
 Capacity: 24 t/h
 Molds dim: 1100 x 1120
 Temperature: 30 °C

type has been installed in a brand new automotive foundry located in Dabrowa Gornicza - Poland with the maximum customer satisfaction. Thanks to its flat surface and to the regular shape of the castings, it allows to divert automatically the different type of castings

towards the lateral sides. The Magaldi Superbelt® PRZ has therefore optimized the sorting operation, reducing the number of operators dedicated to this operation and the costs associated with it.

Italy

Magaldi and the first European FDC reference

by **Paola Paolillo** *Project Manager*
Elio Bonaccorso *Project Manager*
and **Giancarlo Cattaneo** *RRS Managing Director*

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The Magaldi Group started-up in July 2006 the first air floating-belt FDC (Flow Dynamics Conveyor). It follows the agreement signed in 2002 with the Japanese Kawasaki Plant Engineering Co. Ltd one of the most important companies in the Bulk Material Handling field.

Figure 1
The Magaldi FDC in Gela



Project Data	
Handling material	Pet-coke
Capacity (t/h)	400
Length (m)	150
Belt width (mm)	650
Inclination	15°

The FDC is a new, idlerless, high-speed belt conveyor system that uses air pressure to handle bulk materials, in an enclosed pipe avoiding any dust dispersion.

The first Magaldi FDC, which is the first European FDC reference for Kawasaki, has been installed in Sicily (Italy), in Gela Refinery (ENI Group S.p.A.) one of the most advanced petrochemical plant in Europe.

The great attention and respect that ENI Group always had toward the environment and its employees health conditions, have been the key elements that contributed to the construction of this first and important system.

The FDC is enclosed in the new pet-coke conveying line from the open yard to the bunkers of the Power Station inside the Refinery.

The old existing line has always been a problem for the customer because of the great environmental impact caused by the frequent fines dispersion.

The FDC gives the customer the opportunity to use a closed system, in which material is transported completely segregated and where the process is fully automated

By this way, the operator can be substituted, whereas the risk of environmental contamination is higher, reducing at the same time possible human errors.

Plant automation is regulated by the MISS® (Magaldi Integrated Supervision System) which is a software module oriented towards the supervision,

monitoring and data re-collection, and processing control.

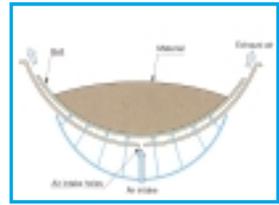
The innovative installation of the FDC and the respect for the environment go along with the most favourable terms of sale that Magaldi Group has proposed to ENI Group, which includes the setting up of a Project Financing process using the construction-management-transfer technique or B.O.T (Built, Operate and Transfer).

This process involves the submission of the Job to the engineering company, including the management of the equipment, for an estimated period of time with the transfer of the equipment ownership to the final customer at the end of the determined period.

The solution entails the ability to manage returns on investment and operative costs through a monthly leasing.

One of Magaldi Group's affiliates is specialized in the management of industrial plants for third parties, and it has obtained for 10 years the management of ENI's plant for the coke loading equipment with the FDC, receiving as a compensation a monthly payment which allows ENI to benefit not only from the adoption of this new technology, but also the costs savings on the investment.

The multiplicity of people that have worked together for the realization of this project, has highlighted the particular characteristic of this venture and the synergy of resources needed in terms of competences, professional abilities, types of work contracts, and economic opportunities.



1



2



3



4

Figure 1
A sectional view of the FDC

Figures 2/3
Some phases during erection

Figure 4
The MISS®
(Magaldi Integrated Supervision System)



Italy Fly Ash Storage Systems at ENEL Torrevaldaliga Nord Power Plant

by **Alfonso Pirro** Sales Engineer

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Magaldi Ricerche e Brevetti S.r.l. in the middle of 2006 received a "turn key" project from ENEL – Torrevaldaliga Nord Power Plant for a new fly ash storage system.

Thanks to the IBAU HAMBURG partnership, the new ash storage silo project will allow to increase the ash storage capacity up to 12,000 m³ per each group, to improve the material handling inside the plant and to optimize the management of the ash disposal, by fully respecting the most recent environmental regulations.

The project refers to the engineering, procurement, construction, erections, start-up and commissioning of 37,500 m³ total storage systems and their related unloading systems designed to meet ENEL special requirements.

The new 3x660 MWe Enel Produzione Thermolectric Power Plant Units located in Tor-revaldaliga Nord (Civitavecchia) will be equipped with Magaldi Storage System as described below. The equipment will be operated from the Main Control Room, located in the auxiliary building. All the other auxiliaries related systems for ash extraction such as blower units, flow control gates, fans, MCCs and switchgears will be placed in a proper area located at ground level, below the silos.

3x12,000 m³ concrete storage silos

ITEM	UNIT	VALUE
Concrete silo storage capacity	m ³	3 x 12,000
Silo height	mm	51,000
Silo internal diameter	mm	22,000
Silo thickness wall	mm	400
Silo feeding rate	t/h	160
Silo unloading rate	t/h	2 x 150

On each plant unit the fly ash will be collected in the boiler area and conveyed by a pneumatic system (positive pressure type) to one of the three final storage silos built in reinforced concrete each one having 12,000 m³ capacity.

The bottom ash will be directly dispatched from three Magaldi MAC® systems, already installed, to three storage silos by a pneumatic system. In this way, there is no need for a separate bottom ash storage.

Magaldi supply includes the functional design of three concrete storage silos and the engineering, manufacturing, erections, commissioning and start up of the complete system for the ash extraction of the three silos.

A slab silo bottom with central cone and fluid slides installed under the silo will transfer the blended ash into a

collecting bin having 25 m³ capacity, then into two pressure vessels located underneath, through two fluid slides having 150 t/h capacity each one.

1x1,500 m³ carbon steel storage silo

ITEM	UNIT	VALUE
Steel silo storage capacity	m ³	1,500
Silo height	mm	24,000
Silo diameter	mm	10,000
Silo supporting structures	mm	20,000
Silo feeding rate	t/h	600
Silo dry unloading rate	t/h	2x80
Silo wet unloading rate	t/h	2x 300

Furthermore, Magaldi will supply a steel silo having 1,500 m³ of nominal capacity complete of its ash extraction system, bottom fluidization (air-slides type), supporting structures of about 20 meters from the ground to the maximum height, stairs, ladders, platforms, walkways, handrails, manholes and cladding. The blended ash will be dispatched from the three concrete silos into a

carbon steel silo or a ship loader by a pneumatic conveying system.

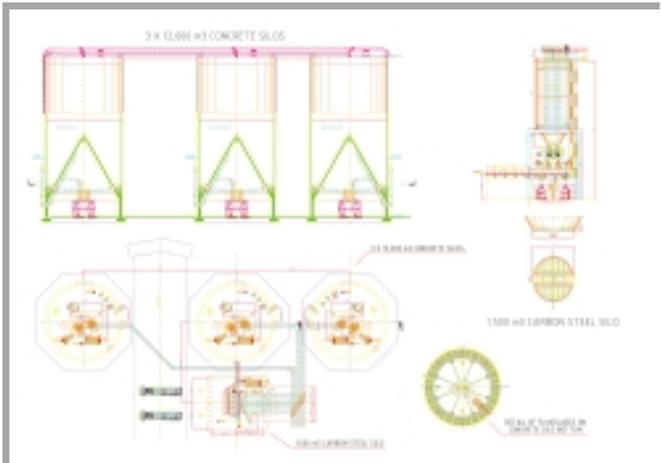
Then, from the carbon steel silo the ash will be dispatched to a ship loader in wet condition, by means of two lines complete of ash mixers, or by trucks, in dry condition, by means of a telescopic spouts.

For these reasons the steel silo will be equipped with two wet Magaldi paddle mixers having 300 t/h capacity and two ash discharge system for tanker loading having 80 t/h capacity per each line.

The silo shell, roof and any other parts directly exposed to ash, will be made of S355J0W carbon steel known as CORTEN welded steel, a fully gas-tight sheet metal plates, reinforced externally with a steel structure.

Steel silo will be designed according to the Eurocode codes and installed on a "seismic" area.

Magaldi steel silo supply includes the engineering, manufacturing, erections commissioning and start up of the equipment, and all related steel structures and its complete system for ash extraction on the silo bottom.





Sweden

Volvo: hot core sand transportation

by **Fabio de Feo** Sales Manager

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EQUIPMENT DATA

Ecomag type: ED/NX 0805-155
Centre distance: 15000 mm
Width: 800 mm
Installed power: 1,10 kW

PROCESS DATA

Material: Hot core sand
Capacity: 30 t/h
Inclination: 20°
Temperature: 700 °C

In 2006 Volvo Powertrain decided to revamp the moulding line for the six cylinder engine block. They had two main targets:

- automatic removal of the sprues
- separation of the core sand from the green sand.

Therefore, two Magaldi Superbelt® have been installed to convey the sprues (automatically removed by a robot) from the moulding line to the scrap yard while a Magaldi Ecomag® conveys and cools the red hot sand after the de-coring operation.

The de-coring operation generates a peak of 30 t/h of hot core sand at a temperature of about 700°C (1300°F) which needs to be cooled and elevated to the inlet flange of the lump breaker.

The equipment selected by Volvo is the Magaldi Ecomag®, a special conveyor designed to handle hot, abrasive and lumpy bulk materials, assuring zero environmental contamination thanks to its complete enclosure in a air-tight casing.

All bearings are installed outside the casing in a clean and cold area, allowing an easy access for maintenance.

On the bottom of the housing a cleaning chain recovers the carried back sand and discharges it in the lump breaker inlet chute.

Moreover, the Magaldi Ecomag® cools the hot sand by a stream of air counter-flowing the sand during the transportation.

This Ecomag® has a 20° inclined section in order to reach the top flange of the lump breaker, an inclination that can not be reached by the vibrating conveyors that are usually used after the shake out.

The plant started its operation at the end of August with complete satisfaction of the customer. We are really honored to have participated to this successful project with our equipment.



NEW MAGALDI WORKSHOP

by **Domenico Casillo** *Production Manager* domenico.casillo@magaldi.com

Magaldi Group started its operation in 1929 in a small workshop situated in Buccino, about 60 km far from Salerno.

For over 77 years, the production has evolved from the manufacturing of the Supercinghia, a buffalo leather belt, to steel belt conveyors, Magaldi Superbelt® and the bottom ash handling systems, MAC® (Magaldi Ash Cooler).

In 2005, by taking into account the continuous increase production volume and the new manufacturing technologies, Magaldi Group decided to move into a new workshop and at the same time, to invest in advanced automated machineries.

The new workshop covers an area of about 17.000 sqmt, whereas the total property land is about 36.000 sqmt. The plant includes two separate buildings one for the offices and one for manufacturing, covering a total area of 2.600 sqmt.

The new workshop is located in the Industrial area of Buccino, near the Bianco river at the feet of the hill.

The workshop working area includes 6 bays - 20 meters span, 8 m useful

height allowing the construction and storage of the equipment.

The three main objectives that management has indicated for the arrangement of the new workshop are:

- Maximum level of automation for the "state of the art" technology;
- Drastic reduction of lead time;
- More attention to the environmental and safety rules;

The production office has been located inside the workshop for better operational support and feedback.

These are the three main areas located inside the workshop:

- Production – approx. 11.000 sqmt;
- Warehouse – approx. 3.000 sqmt;
- Facilities and plant services – approx. 3000 sqmt.

The conveyor's production methods has been implemented through the concept of the "Value Stream Reevaluation" and the workshop layout is "U" shaped in order to optimize the internal material handling.

New equipment has been installed to minimize costs and to compile with the safety and environmental rules,

such as:

- Painting system, based on the "Powder Coating Technology" for maximum quality and environmental protection;
- Metal bending and rolling machines for high production volumes;
- Laser cutting machine with automatic buffer storage;
- An anthropometric robot serving the bending and welding machines;
- Ten overhead cranes, twelve flag cranes and a number of moving and lifting equipment allow a high production capacity, estimated in 3.000 tons of steelworks per year.

A separate production line, directly controlled by the Service department has been introduced too, in order to quick respond to customers requests and to generate limited series of "Out-of-Standard" components. This new organization will be supported by an integrated ERP management system which is expected to optimize the production scheduling and the cost control.





MAGALDI POWER PTY LTD OFFICE MOVES TO NEW OFFICES AND WAREHOUSE

by **Peter Siers** *Magaldi Power Pty Ltd General Manager* peter.siers@magaldi.com

Magaldi Power Pty Ltd has been busy setting up a full time Australian representation since late August of this year, when Peter Siers joined the business as General Manager.

At first operation was from a single room office in Bathurst, NSW where secretarial support services were shared with a few other businesses.

Giordano Nobile, a mechanical engineer from the Salerno offices, joined

Magaldi in Australia for a 12 month period commencing in October, and space started to become cramped. On Monday 27 November we moved into an office and warehouse facility near Bathurst's airport. The office has accommodation for 5 people, and there is 500 square metres of warehouse space to establish our supply of spare parts, with which we will support local installations. Two new staff

members have joined us since our move to the new location.

These are Deb McAlister, Finance, and Lizzie Siers, Office Assistant.

The new location is 1 Adrienne Street, Raglan, New South Wales, Australia, 2795. The new telephone number is +61 2 6337 3745 and fax is +61 2 6337 3966.



MAGALDI CELEBRATES OPENING OF NEW WORKSHOP

by **Goffredo Bassano** *Marketing dept.* goffredo.bassano@magaldi.com

This year, Magaldi's traditional Christmas party has turned into a great occasion to celebrate the opening of the new Buccino's workshop.

The celebration has began by the speeches of some political and economical authorities, who have testified the appreciation of the large efforts that Magaldi Group have been made through its 77 years of life, then, the words of Letizia Magaldi, first-born daughter of the President, Mario Magaldi, who has remembered the great importance of familiar bonds to get trough all experiences done by the company.

Next, it was the time of brother Paolo Magaldi talking, few deep and fervent words to say thanks to all Magaldi staff and finally, a visibly and moved president Mario Magaldi, who has expressed all his satisfaction for the goals achieved and the wish to carry on in the same successfully way.

Most of all Magaldi staff has attended the ceremony, finished by the traditional performance of a young group of dancers.

The event has continued with the facility tour to show the new technologies and equipment used in several production processes.

Finally, while a gallery of images of



Magaldi Group's story were projecting, a taste of a large variety of typical gastronomic specialities was offered to everybody, concluded by a good omen toast for 2007.



LICENCE AGREEMENT FOR WEST BENGAL SIGNED IN KOLKATA

by **Simone Savastano** *Area Manager*

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The present boom of Indian nation is eager of energy to sustain an economic growth close to 8% per year.

The demand of power in India is enormous and is growing steadily: today 140 GW are installed while other 100MW are planned to be installed in the next 10 years.

In its quest for increasing availability of electricity, India has adopted a blend of thermal, hydro and nuclear sources. Out of these, coal based thermal power plants have been the mainstay of electricity generation: 55% of India electricity production is based on this fossil fuel.

These few numbers clearly show that the vast Indian power market today offers one of the highest growth opportunities for private developers, with some special attraction for those

involved in coal based electrical production and a special eye for those technologies reducing the environmental impact related to coal power generation. The foregoing data explain why India is considered a key market for Magaldi Power, where the first MAC® installation will be started in Durgapur in mid 2007 (see article page 2). The first step towards a stable presence in this market was taken on Monday February 12th, 2007 when a licence agreement for the marketing of the MAC® system in this State was signed between Magaldi Power and DC Industrial Plant Services Private Limited (DCIPS). DCIPS is a company founded in 1983 and operating under the banner of Development Consultants (DC) group of companies, the Indian Transnational which is among

the front-runners in the Indian Engineering Consultancy business. DCIPS is the pioneer in India in the field of design, manufacture, erection, commissioning of ash handling system on turnkey basis. The License Agreement was signed during the recent Indo-Italian forum in Kolkata at the presence of the Minister for Commerce & Industries of the Government of West Bengal Mr. Nirupam Sen, the Italian Minister for International Trade Mrs. Emma Bonino and the President of Italian Confindustria Piccole Imprese Mr. Giuseppe Morandini: at top level audience for an agreement representing a fundamental achievement for the development of Magaldi in the Indian market, a market considered of primary importance for the Magaldi Group.





MAC - Magaldi Ash Cooler
Dry bottom ash extraction system



Magaldi Fluimac
Dry ash extraction system
for fluid bed boilers



MAGALDI MRS - Magaldi Mill Rejects System
Dry coal mill rejects handling system



MAR - Magaldi Ash Recycling
Dry extraction and recycling
of bottom and fly ash



Magaldi Superbelt
Dependable steel belt conveyor



MCC - Magaldi Casting Cooler
Magaldi Superbelt for forced
air casting cooling

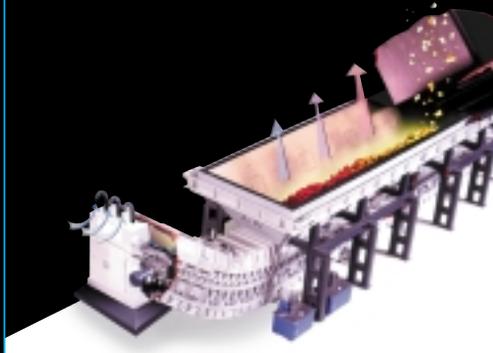


Magaldi Superbelt PR/PRZ
Magaldi Superbelt for casting
sorting over sprues



Magaldi Ecomag - Ecobelt
Dust proof Magaldi Superbelt conveyor

**Dependable
by innovation since 1929**



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