MATTEL COMPANY OVERVIEW



MATTEI USA New challenges

SIDERINOX A stainless relation... like steel

VINADEIS/UCCOAR South of France wines choose <u>Mattei compressors</u>

GAS FLARING The contribution of the Mattei Research

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SOUTH OF FRANCE WINES CHOOSE MATTEI COMPRESSORS

MATTEI RESEARCH TO REDUCE GAS FLARING

Leading role for Mattei technology at InnoTrans 2016 with a multitude of specific applications for the transport industry.

The leading international trade fair for transport technology, this year taking place at the Berlin Exhibition Grounds from 20 to 23 September, has always been a special opportunity for Mattei to present some of its most innovative solutions to be employed in this strong and continuously evolving market. In addition to a high degree of customization, these solutions combine the highest performance with extraordinary



suits the main global players' specific needs: quiet operation, reliability, compact dimensions, constant air supply and less energy consumption to name but a few strengths of Mattei compressors designed for the transport industry. On a global scale, they are used for means of rail transport including train, tram and metro lines; busses for both urban and suburban transport as well as vehicles used for special transit applications. After all, being able to compete in "specialties" is one of the aspects making Mattei a trusted partner, going beyond the role of a compressor manufacturer.

Massimo Comina Chief Commercial Officer

operating reliability thanks to an exclusive, patented technology, which definitely

# NAATTEINAATTEISAATTEISAATTEINAATTEISAATTEI



Jay R. Hedges, President of Mattei Compressors Inc. since 2008, illustrates the main stages of growth indicating new opportunities the company is going to take up in the US market.

The company has been present in the United States for 30 years, where it has been able to build up a consolidated leadership in numerous industries, in the transit and body shop market as well as in the gas treatment market with an average growth of 15% per vear over the last decade.

Mattei Compressors, Inc.

medebal

Minine

Today, for Mattei USA, there are new challenges in sight as far as both new application fields and new geographical contexts are concerned. Mr. Jay R. Hedges, who has been the President of Mattei Compressors Inc. for eight years, gives us some insights: *"The first challenge to face is that of the industrial sectors using compressed air systems that are totally oil free,"* he explains. *"Before this year, we* 

"Before this year, we did not have compressors showing such features. For this reason, we have entered into a technical partnership with a filter manufacturer. As a result, we have obtained a class zero product." The first challenge to face is that of the industrial sectors using compressed air systems that are totally oil free.

did not have compressors showing such features. For this reason, we have entered into a technical partnership with a filter manufacturer. As a result, we have obtained a class zero product, which became an ISO standard for air quality a few years ago.

Such a system applied to our compressors has been certified for its oil-free air quality after testing and validation by Lloyd's in London. This system allows our lubricated compressors to be used as if they were oil free air compressors. The advantage lies in costs that are 30 per cent lower compared to the latter, due to lower capital purchasing prices, lower operating costs, and increased durability. Since even an oil-free compressor needs grease for the motion of bearings, it



requires - and this must be borne in mind as they will need the same filtering systems used for our compressors to provide air that is completely oil free.

our services to the food industry, to some chemical industries as well as to the electronic industry specialized "The official launch will take place next month, but we have already sold one of these new systems to a

customer in Mexico with considerable experience in oil-free screw compressors. The deal was made through our new Area Manager for Latin America, Mr. Esteban Cantu, who joined us last November and has in the meantime organized a network of distributors for this strategic area.

"In most cases. water lubrication is employed for oil-free screw compressors; this requires a specific Thanks to this innovative rotor design in addition Absolute-Zero Oil-Free Air to high manufacturing System, we are able to offer costs. However, the average product life-cycle is a third compared to that in manufacturing microchips." of a lubricated Mattei It is a great alternative ready Vane Compressor, to be launched on the Market: and the cost of the screw unit is about 30/40 per cent of the total compressor cost."

The customer, Ravicmar, headquartered in Mexico City, has already presented our new system on the occasion of three trade shows in Mexico, arousing the particular interest of a worldwide leading soda bottling company."

Yet, the expansion in Latin America, is the big geographic challenge Mattei USA is presently facing: "Esteban Cantu joining our organization has been a good move: this way, not only do we have a suitable product but also the technical proficiency to penetrate such an interesting Market like the food and beverage industry in Latin

America. The only obstacle, actually, is the fact that till yesterday the target Market for this type of compressor was dominated by a single large manufacturer of oil-free screw compressors. Its specifications were included in all requests for an offer. However, our goal is to promote awareness

among final users through our sales force and distributors by making them understand that oil-free air can be also obtained with lubricated compressors equipped with an adequate filtering system. By the way, by choosing this option, solutions are likewise valid but less expensive at the purchasing stage, and more efficient in terms of reduced maintenance costs and lower energy consumption."

Convenience is the key word, Mattei USA is focussing on: "In most cases, water lubrication is employed for oil-free screw compressors; this requires a specific rotor design in addition to high manufacturing costs. However, the average product life-cycle is a third compared to that of a lubricated Mattei vane compressor, and the cost of the screw unit is about 30/40 per cent of the total compressor cost. In a nutshell, our solution provides cost savings of 30/40 per cent at the purchasing stage plus a three-times-longer durability."

Notwithstanding, Mattei has another trump card for further



growth on the US Market: the new Blade series. "This type of compressor finds large application in the automotive industry, in particular for body shops and car dealers. In this sector, once dominated by small piston compressors and later by screw compressors, the Blade series compressors are an extremely competitive solution. As a matter of fact, they combine lower costs and high-quality features, providing reliability, quiet operation, and reduced maintenance even in dusty environments."

As a confirmation, the Blade series achieved a notable success during its presentation at the National Automobile Dealers Association's show, the NADA convention, in Las Vegas. "A stimulating experience: facing the owners and top managers of the leading automobile dealers, we demonstrated two Blade compressors in operation both mounted on a single tank. They could hardly believe that there was finally a compressor available that was less noisy than a piston compressor and less complex and delicate than a screw compressor!"

"A stimulating experience: Facing the owners and top managers of the leading automobile dealers, we demonstrated two Blade compressors in operation both mounted on a tank. They could hardly believe that there was finally a compressor available that was less noisy than a piston compressor and less complex and delicate than a screw compressor!'

# MATTEL – THE MAIN INGREDIENT FOR THE SUCCESS OF ELITE SPICE, USA

ELITE SPICE

Elite Spice is a global importer and producer of a large variety of pure spices of superior quality. It also offers custom blended seasonings, highly specialized capsicum products, and an extensive range of other flavoured food ingredients.

#### ELITE SPICE, QUALITY SPICES AND FLAVOURS SINCE 1988

At the beginning, there were just 14 employees and a surface of 20,000 sqm designated for production. Today, Elite Spice, the American company specialized in manufacturing spices and herbs, employs 425 people in its three plants in Maryland, and one in Arizona, extending over a total area of 650,000 sqm.

Elite Spice's core business is processing spices and herbs for

the companies in the food industry selling the product to the final consumer under their own brand. In the Elite Spice production plants, much attention is drawn to every stage of the spice processing process: from washing the raw material to grinding and packaging, even in special formats. Upon customer request, specially blended seasonings are prepared.

Quality and safety are values that have inspired the Elite Spice production ever since. Natural spices imported from all over the world normally contain many impurities. However, the cutting-edge systems employed by Elite Spice are able to eliminate pathogens and to reduce contaminants to a minimum. Moreover, food standards are particularly strict in the United States. Thus, the Elite Spice Quality Control Department performs tests and in-depth analyses during the entire production process in order to meet the high levels of hygiene requirements. A considerable task for the American company, which turns into the capacity of supplying a product of excellent quality that has been highly regarded for over 25 years.

#### TEAM PLAY BETWEEN MATTEI AND ELITE SPICE ALL ALONG

Mattei US supplies the compressed air needed for operating all automation systems throughout the entire production chain of Elite Spice.

"Since 1990, as many as 32 Mattei compressors have been working in the Elite Spice production plants in Maryland and in Nevada.

Elite Spice has chosen the Mattei rotary vane technology for more than 25 years: the last machine was delivered at the beginning of 2016 for the Jessup production plant in Maryland," Mr. Jay Hedges, President of Mattei Compressors Inc., says.

"In addition to the first models installed, Elite Spice has recently relied on our AC series powered with 37 kW, and specifically designed for industrial purposes," Mr. Jay Hedges carries on. "These state-ofthe-art compressors also feature MaestroXS, an electronic controller, to best manage all operating fluctuations as well as several work cycles." For over 25 years, highly efficient Mattei compressors have been employed in the production plants of the American company specialized in the production of spices and herbs.





"Reliable and silent, they greatly cater for our needs for compressed air. That is how Mattei compressors have gained the trust of Elite Spice from 1990 to date."

John Yates, Elite Spice Manager of Engineering Maintenance.



#### WHY MATTEI? THE SECRETS OF A LONG-LASTING RELATIONSHIP

More than in other sectors, it is essential in the food industry to provide dry and clean air with the least possible oil residuals, which are harmful if entering into contact with foodstuff.

Moreover, it is necessary to stand very intense processing cycles over an extended period of time.

"Mattei technology minimizes oil residuals and enables us to have dry and clean air of really excellent quality,"Mr. John Yates, Manager of Engineering Maintenance at Elite Spice, explains. "Other features that have convinced us to confirm Mattei compressors over the time are the compact design, great reliability and quiet operation. The latter is a great plus in terms of comfort at the workplace." Mattei compressors have been engineered and developed with utmost care in order to ensure best performance in the specific context they are employed for: "Elite Spice's special requirements have made it necessary to install a series of dryers and filters to reduce condensation, ensuring that the outgoing compressed air is basically free of any oil residuals," Mr. Jay Hedges adds.

#### A GOOD COMPRESSOR LASTS "FOREVER "

The Mattei compressors, which have been installed 25 years ago, are still in a perfect operating state - running indeed side by side with the latest-generation versions. "The loyalty towards Mattei has been unchanged since the beginning of Elite Spice's business. Mattei has gained our trust thanks to a reliable and silent quality product providing the dry and clean air we need to comply with the strict health standards. The fact that the first compressors installed are still performing has fully returned our initial investment," Mr. John Yates says.

#### MICROPROCESSOR **MAESTRO**<sup>xs</sup>

The safety and control system with Maestro<sup>xs</sup> microprocessor ensures flexibility and adaptability of the air system, contributing to improve the plant efficiency and to reduce energy costs. Maestro<sup>XS</sup> enables to control, monitor and automatically program compression by means of intuitive control panels. It can be connected to a PC for convenient remote control. Moreover, Maestro<sup>xs</sup> is enabled to analyse and collect data on operating efficiency, failure and errors. Besides, every machine can store all pertaining compressor settings and operating data.



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Since the 1990s, Mattei compressors accompany Siderinox in the production of stainless tubes, providing the compressed air necessary for all automating systems.

#### SPECIAL TUBES FOR NUMEROUS APPLICATIONS

Founded in 1968, Siderinox SpA specializes in the production of longitudinally welded stainless steel tubes. The company has a significant presence on international Markets Manifold are the application fields of its products that are certified for high quality at European level according to ISO 9001:2008 standard criteria. Siderinox tubes are employed in the food, chemical, paper, and construction industry, including architectural decorations and highly technological mechanical engineering to name but a few.

The core business is performed in the memorable head office in Caselle di Morimondo, in the Milan Province, where on a total area of 65,000 sgm - 40,000 sgm of these are covered - the plants for the several stages of the production cycle are located. These include longitudinal slitting, production of stainless steel tubes with Tig and Laser welding, automatic pickling, satin finishing, and internal and external product polishina

#### MORE THAN 25 YEARS OF PARTNERSHIP BETWEEN MATTEI AND AIR BONAITA

Since 1990, Siderinox has chosen the rotary vane compressors by Ing. Enea Mattei SpA as supply source for industrial systems and equipment requiring compressed air.

"Through Air Bonaita, a company with great experience in the field of pneumatic automation and compressed air systems, we made the acquaintance of the Mattei rotary vane technology more than 25 years ago. Since then, we have always been loyal to this brand, which has immediately excelled in great reliability and efficiency," Mr. Paolo Sassi from the consulting firm DSP srl, who has been Technical and Production Manager at Siderinox SpA for years, says. Mr. Mauro Carsana from the Air Bonaita Group, a longstanding dealer of Mattei compressors, agrees: "Undoubtedly, the great reliability and undisputed efficiency of Mattei compressors have been the reason that I personally proposed this solution to Siderinox. I have known Mattei products for years and I have been able to observe a high performance level on site: the quality of components and the low rotation speed stand for a significant reduction of consumption and maintenance operations making the purchase of a Mattei compressor an optimum investment over the time."

#### RELIABLE AND PROFICIENT ASSISTANCE

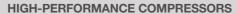
In addition to the high-quality compressors, also customer service is noteworthy according to Mr. Mauro Carsana: "A great plus of Mattei is the ability to go along with the customer throughout the entire compressor life-cycle, starting from selecting the product. It is more than thirty years that I know the Mattei company, and I do appreciate its values in addition to the product quality. Optimum synergies have been build up with Air Bonaita, based on the same corporate philosophy that aims at providing the best possible service to customers, even after the sale of the product. "We have scheduled six-monthly

"A great plus of Mattei is the ability to go along with the customer throughout the entire compressor life-cycle, starting from selecting the product. It is more than thirty years that I know the Mattei company, and I do appreciate its values in addition to the product quality."

Mauro Carsana, Air Bonaita Group

inspections on all compressors employed. As a result, all machines have been maintained in perfect performance over the time," Mr. Paolo Sassi adds. "We have been customers of Mattei for over 25 years. Hence, we can say to be satisfied not only with the superior compressor quality but also the proficient professionalism Mattei has displayed through their dealer Air Bonaita that served us all the time."





In the course of the years, Siderinox has purchased several Mattei compressors from the series AC, ERC, MAXIMA and OPTIMA. "The two compressor rooms use two distribution rings that are distinct but communicating in case of failure or malfunctioning in order to safeguard the continuity of the production cycle," Mr. Paolo Sassi explains. "In order to sustain growing production needs, a third room has been equipped with a highly efficient compressor of the MAXIMA series with 110 kW power rating. It is able to operate without any problems 24 hours a day, above all silently".

"Siderinox also uses compressors of the OPTIMA series 132 kW powered. Thanks to the variable speed, this model is able to adapt its operation to the load profile required by the compressed air system ensuring maximum energy savings," Mr. Mauro Carsana adds.



#### AIR CENTRE COMPRESSORS

Designed for the needs of the mediumsized and big industries and able to operate 24 hours a day with constant performance. They are reliable, compact,

and silent. Equipped with a modulating proportional intake valve, air supply at constant pressure and the possibility to operate without tank is provided. They offer reduced maintenance costs and reduced energy consumption in addition to high air quality. With power ranging from 7,5 kW to 250 kW, they are available as standard and PLUS versions with integrated air dryer.



#### **CLASSIC COMPRESSORS**

The ERC frame compressors are available as base-mounted or tankmounted version with power ranging

from 1,5 kW to 55 kW. They are complete with air-end cooling, condensate separator and discharger.

Thanks to the low noise level, the machine can also be used without sound-proofed cabins.



#### MAXIMA COMPRESSORS

These highly efficient compressors have been designed for operating screw units at only 1,000 rotations per minute and are able to operate for more than 100,000

hours. The optimum air is ensured by a filtering system offering a 99% efficiency, while the three-phase oil-separating system reduces the oil passage into the air to < 1 ppm. These highefficiency compressors reduce oil usage by approximately a third and use half the lubricant required by a rotary screw compressor. They are available with power ranging from 30 kW to 160 kW.



#### **OPTIMA COMPRESSORS**

Featuring an inverter, the variable speed compressors automatically adjust the motor rotation speed on the basis of the load profile. With direct coupling and power ranging from 11 kW to 200 kW, the

OPTIMA series compressors display undoubted advantages in terms of reliability and resistance, reduced interventions and minor maintenance costs. Moreover, they are environmentally sustainable thanks to the much reduced lubricant usage compared to traditional screw compressors.

# FROM THE PROJECT TO THE MARKET: THE ROLE O MATTE DEALERS

Testing performed on the 15-18-22 Blade pre-series compressors has made it possible to eliminate critical issues before launching the product on the Market.

"There is a well-defined and proven course of action starting from the compressor engineering stage that leads first to manufacturing the prototype and then to industrialization.

This course could not be pursued without the strong involvement and synergies of all internal corporate functions as well as of all members of the commercial and distribution network that are in close contact with the Market."

This is asserted by Mr. Giulio Contaldi, CEO of Ing. Enea Mattei. Taking his cue from the recent 15-18-22

Blade project, he dwells on the fundamental role the distributor network has played in fine-tuning the final version of this innovative series, by this time ready for debuting the Market.

"Mattei's most authoritative and important sources for advice, suggestions and proposals are the trusted distributors in Italy, and subsidiaries and importers abroad," he carries on. "They feel the pulse of the Market and know directly the user needs for our products at close quarters

This means, during the passage from a product's



pre-series to industrialization, their opinion is extremely important, if not vital." It is not a coincidence that for this latest compressor pre-series not less than 13 partners have been involved on the whole in the product testing stage: from Italy, France, Germany, UK, Switzerland, Portugal

and Belgium. A panel of very experienced interlocutors, who have provided a series of important suggestions, which were collected

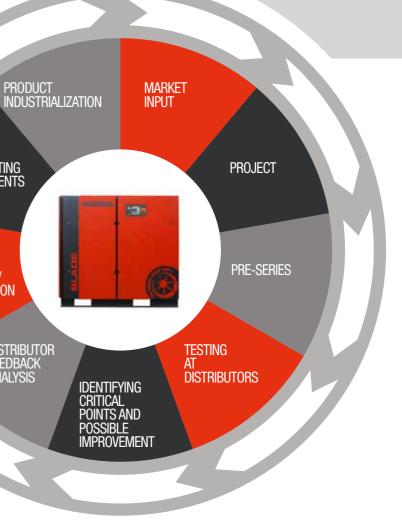
abroad."

"As a company, we are particularly attentive to the feedback from by means of an accurate survey, following the placing at disposal the Market," Mr. Giulio Contaldi concludes, "and in particular from of these machines, their installation at a final customer and their those being in direct touch day by day. We consider this cooperation maintenance important for the purpose of launching a new product, eliminating This way, a series of aspects to be optimized have come up that from the basis, already during the pre-series stage, all those critical were subject to accurate internal analysis by the several corporate points that only an attentive and expert eye can discover and lay persons in charge of the project and have then been taken up bare. This is an additional guarantee for the users of our machines."

> FEASIBILITY CHECK, CORRECTIONS/ MPLEMENTATION

IMPLEMENTING IMPROVEMENTS

DISTRIBUTOR FEEDBACK ANALYSIS



"Mattei's most authoritative and important sources for advice, suggestions and proposals are the trusted distributors in Italy, and subsidiaries and importers

and implemented: staring from the compressor's noise level, which was reduced thanks to better sound insulation of the machine, to the need to change the air filter to further facilitate maintenance; from lubrication-related topics to the machine pre-filters, for which internal components were

#### optimized.

#### SERVICE

## ALL **ADVANTAGES OF SCHEDULED** MAINTENANCE



# A golden rule to keep your compressor in a perfectly efficient state. The role of the authorized Mattei dealer.

any replacement of vanes or other metal parts Like every machine, a compressed air plant requires an adequately scheduled maintenance necessarv program in order to preserve full efficiency. For this reason, it is essential that the final user Actually, it is right this way that a compressed air subscribes a contract for scheduled maintenance plant continues offering performance equal to that with their trusted supplier - i.e. an authorized when it was purchased. Mattei dealer-reseller

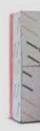
It is a golden rule to be followed meticulously. The guarantee for perfect efficiency ensured by the manufacturer cannot set aside a correct and complete maintenance programme that foresees a series of accurate controls at established intervals wear.

This applies also for Mattei industrial compressors costs and investment at established intervals. despite their extreme reliability, which enables In this particular case, it is more than true: them to reach 100,000 operating hours without Prevention is better than cure.

#### WHAT DOES MATTEL OFFER? Mattei foresees a large number of maintenance kits through its network of authorized dealers.

The first and maybe most used one is the ordinary maintenance kit. It foresees at regular intervals the replacement of the cartridges of intake filters, oil filters and connection rings that are most subject to wear. Other specific kits foresee the replacement of oil separators, the

rotor/stator unit gaskets, and valves. Finally, there are machine kits covered by MyCare guarantee extensions. At any rate, it is essential that every intervention is performed using original Mattei spare parts and lubricants, only.



Such formula ensures a series of advantages. First of all, it makes sure that the compressor is maintained in a perfect operating stage throughout its entire life cycle. Moreover, unpleasant surprises, above all unexpected machine stoppages, which along with the replacement of parts subject to often leads to stops in the production line, can be avoided. In addition, it is possible to schedule



# SOUTH OF FRANCE **WINES CHOOSE** MATTEI **COMPRESSORS**





Mattei France has provided a both efficient and effective solution for the production site in Carcassonne belonging to the prestigious Uccoar/ Vinadeis Group.

#### THE STRENGTH OF THE VINADEIS GROUP:

to 28 different Countries in the Regions of Europe, Asia and South ORGANIZATIONAL INNOVATION AND SOUND VALUES America. At the three sites of Narbonne, Béziers and Carcassonne, The majority of the holding (58%) is held by the cooperative Les every year, 180 million bottles are produced, 18 million Bag-in-Vignerons du Val d' Orbieu, based in Narbonne, the heart of the Boxes and Cubes, 20 million Tetra Pak containers and 1 million number one winegrowing region in the world, Languedoc Roussillon. barrels of wine originating from 17 thousand hectares of vineyard Almost 1,600 producers with 11 winemaking cooperatives and 55 and being vinified in 11 centres. In addition to figures, making castles and estates are part of it, producing every year about 550 Vinadeis an example of excellence, there is also the merging of thousand hectolitres of DOC wines full of history and tradition. The values that distinguishes this group, which is able to combine remaining 42% is divided into equal parts among the agricultural the strong passion for wine and the land, and a supply chain that group EVOC and InVivo Wine. The EVOC society controls Uccoar, integrates all operations taking the wine from the vineyard into the based in Carcassone, and owns the cooperatives Cave du Razès glass. Within a vision based on sustainable development, Vinadeis and Cave la Malepère: with approximately 50,000 hectares of has built up a structured organization in order to guarantee product vineyards in Aude, it produces wine for the large scale retailing, traceability, safety and quality, care for the environment and as well as flavoured wines and non-alcohol wines. InVivo Wine, valorisation of biodiversity, solidarity and safety for those working, instead, is a division of the InVivo group trading and exporting wine product and process innovation, efficiency and cost control.

At the three sites of Narbonne, Béziers and Carcassonne, every year, 180 million bottles are produced, 18 million Bag-in-Boxes and Cubes, 20 million Tetra Pak containers and 1 million barrels of wine originating from 17 thousand hectares of vineyard and being vinified in 11 centres.

For the global wine production, France is historically one of the areas of excellence in terms of both volumes and quality.

Right in the core of this tradition, the business activities of the Vinadeis Group, one of the most important winegrowers in the South of the Country, take place. Since its foundation forty years ago, the Vinadeis Group has acquired an always more central role in the wine production in France, virtuously synthesizing the values of two entities in strong competition among each other for years, Val d'Orbieu and Uccoar. The figures speak for themselves: there are more than 2,000 winegrowers referring to Vinadeis, 120 workers organized in cooperatives, and 400 group employees.

"Only through an accurate study of the performance required, a precise profile of the needs for compressed air and energy can be defined, identifying the machines that best adapt to the type of use for every customer. With Uccoar, this method has made the difference compared to our competitors."

(P. Cluchague, General Manager, Mattei France)

#### ACCURATE NEED ANALYSIS LEADS TO A CUSTOMIZED PROJECT.

It is right in terms of efficiency and

cost control, where the technology of Mattei vane compressors has played an important role, so that it has been chosen for the compressed air supply of the plants at the Uccoar production site in Carcassonne.

Many are the reasons for this choice, but determining has been the thorough preliminary analysis of the needs of the production



complex, performed by Mattei France: "As a rule, when approaching a new potential customer, we study in depth the special usage requirements for

compressed air within the production cycle," Mr. Philippe Cluchague, General Manager of Mattei France explains. "Only through an accurate study of the performance required, a precise profile of the needs for compressed air and energy can be defined, identifying the machines that best adapt to the type of use for every customer. With Uccoar, this method has made the difference compared to our competitors and led us to win the contract."

In order to ensure the most suitable system to support the winery's machines and equipment, above all those destined for the numerous bottling lines, a customized solution has been tailored enabling operation at full capacity or at 3/8 of the maximum power. "For this specific need," Mr. Philippe Cluchague carries on, "we have actually proposed Uccoar the installation of two Mattei compressors: an industrial compressor MATTEI AC 37 L as main compressor, and a second one with variable speed, OPTIMA 90, as complementary machine".







"The performance of Mattei compressors well combines with the requested efficiency and the service provided by Mattei France, which did not only manage the installation and commissioning of the compressors, but also trained a technician."

P. Rainier, Head of Maintenance at Uccoar, Carcassonne

TECHNOLOGY.

and a three-phase oil separator. constant pressure. hinging

**RELIABILITY AND SERVICE.** 

#### AC SERIES AND OPTIMA SERIES: THE SECRETS OF THE MATTEI

Having a direct coupling through elastic joint with a 1:1 ratio, the AC series compressors feature an oil cooling group with two aluminium radiators

This ensures a high quality of the compressed air that is continuously at

Particularly silent, they have a soundproof cabin in coated sheet steel and covered inside with sound absorbing material, fire resistant, with large doors and demountable panels for complete accessibility during maintenance stages. The IP54-class-rated control panel with electronic Maestro<sup>XS</sup> microprocessor controller and LCD semi-graphical display enables machine operation in continuous, automatic and modulating mode. OPTIMA 90 is part of the Mattei

series of electronic compressors at variable speed thanks to the use of an inverter.

This technology, based on an electric circuit that is able to change the number of compressor rotations and to modulate the power, enables to automatically adjust operation as to the load profile, so that the air emitted by the system does always correspond to the request in real time.

They also have an elastic element directly coupling motor and compressor, ensuring quiet operation and reducing the need for maintenance. The compressors of the OPTIMA series ensure optimum air quality thanks to a filtering system with 99% efficiency and a significant reduction of energy consumption up to 35% due to the automatic adjustment of the rotary speed based on demand fluctuations. Also OPTIMA 90 is fitted with the Maestro<sup>xs</sup> microprocessor electronic controller.



#### **CUSTOMER SATISFATION:**

"During two years of operation, we have been able to appreciate both the robustness and reliability of Mattei compressors that have never come up with the slightest issue," Mr. Pierre Rainier, Head of Maintenace at the Uccoar site in Carcassonne, says. "What is more, we have also been able to perceive an effective reduction of energy consumption weighing on the

company's general costs, and as a result, on the final cost of the product. The performance of Mattei compressors well combines with the requested efficiency and the service provided by Mattei France, which did not only manage the installation and commissioning of the compressors, but also trained a technician, who had already been in charge of maintenance at our company. Actually, a good example of cooperation and service customization."

# MATTEI RESEARCH TO REDUCE **GAS FLARING**

For the World Bank, it is important to contain the phenomenon of gas flaring determining harmful impacts on the environment.

Year by year, in the oil producing sites worldwide, about 140 billion cubic meters of natural gas are burnt with an emission into the atmosphere of over 300 million tons of involves numerous governments that are asked to apply CO<sub>2</sub>. These are the impacts of the gas flaring phenomenon, a method that consists in burning - without energetic recovery - exceeding natural gas extracted along with oil, generating that typical torch with perennial flame that usually soars at the top of petroleum towers.

It was the World Bank that drew the global attention on the negative impacts caused by this phenomenon with the initiative "Zero Routine Flaring by 2030", aiming indeed at setting to zero such practice by that date. Behind this project, there are considerations of both environmental and economic kind. Yet, not only does gas flaring contribute to Climate Change for contaminating emissions, but it also determines the waste of a precious resource, i.e. natural gas, which might contribute to solve the energy needs of the oil producing countries, promoting sustainable development.

Obviously, this does not refer to the flaring becoming 2°C, decreasing by 2050 contaminating emissions from 70 unnecessary for plant safety reasons, but to that dispersion process, which could be efficaciously avoided by providing such structures that are able to convey the produced gas into specific systems to reuse it on site or sell it on the Market.

Gas flaring, emitting contaminants into the environment, contributes to Climate Change on Earth. Besides, it determines the waste of a precious resource, i.e. natural gas, which might contribute to solve the energy needs of the oil producing countries, promoting sustainable development.

This campaign - managed through the Gobal Gas Flaring Reduction Partnership (GGFR), a public-private initiative new regulations in addition to inducement to invest into infrastructures, and the oil companies. The latter are invited to adequately modernize their plants in this direction and to fine-tune plans that foresee the sustainable use as well as the valorisation of the gas extracted together with petroleum.

A topic, hence, of extraordinary current interest and extent, which is also of Mattei's concrete concern thanks to a remarkable experience in designing and implementing gas compression systems.

Feasibility studies and projects are at the developing stage on the part of the Italian company, adopting the World Bank's directions, reasserted last December on the occasion of the Climate Conference held in Paris.

The agreement originating from the event in France has highlighted the need to reduce global warming by at least to 95 per cent compared to 2010.

The initiative was signed by 45 governments, by petroleum companies (including Eni, Italy) and other organizations. Now, it is up to the enterprises, and Mattei is already in the field.

### Blade 15-18-22

Efficiency, versatility, quietness, compactness.



#### FINALLY A COMPRESSOR TAILORED TO THE NEEDS OF MEDIUM-SIZED BUSINESSES

The new 15 - 18 - 22 Blade Series is the perfect solution for the compressed air needs of medium-sized businesses. Mattei's design concept and its rotary vane compressor technology combined with a directly coupled electric motor has allowed the creation of a machine characterised by its compact design, high reliability, low maintenance costs, high efficiency and quietness. Mattei is able to offer a complete range of solutions thanks to the availability of several versions of this Blade compressor – base mounted, as a fixed speed or inverter driven variable speed unit, with integrated dryer and heat recovery kit options. The Blade is also fitted with the latest generation "Maestro XB" controller with digital display making it possible to set up different operating parameters and provides a continuous monitoring of the compressor.



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