WAMGROUP® NEWS

The Best Deal in Bulk Solids Handling & Processing

WAMGROUP® RESEARCH WITH BOLOGNA UNIVERSITY

Alessandro Ragazzoni (45) is a professor at the Rural Economics & Engineering Department of the University of Bologna, Italy. Since early 2008 he has been in charge of a common research project between WAMGROUP[®] and Bologna University.

Newsletter How did cooperation between you and WAMGROUP® start and what was the focus of research?

Ragazzoni My department shared WAMGROUP®'s interest in research on evaluation of environmental supportability in animal farming as one of the main objectives in ensuring that farms improve in protecting the environment. During their research WAMGROUP® focused on the development of an innovative manure treatment process with the aim of reducing both running costs and environmental impact.

Newsletter Which are the main points of contact in researching between the university and WAMGROUP[®]?

Ragazzoni There are mainly two: first the Group's sensitivity towards scientific and applied research; secondly their interest not only in economic subjects, but also in environmental protection. This common ground you don't find very often between industries and the academic world.

Newsletter What are the main features of this research project?

Ragazzoni Modelling an economic analysis of the convenience for enterprise and territory in the use of plants for solids-liquid separation of manure. Information on the efficiency of such plants, especially in cattle and pig farms, is essential for the analysis. In providing this information, the WAMGROUP® researchers form a perfect team with those from our university.

Newsletter Are there already analytical results from the use of SEPCOM[®] Farm?

Ragazzoni The first satisfactory results in a number of farms in northern Italy have been published in some leading scientific Italian journals. Undoubtedly farmers will be facing problems in complying with the new Nitrate Directive. Solids-liquid separation of manure will help them to overcome those problems.

Newsletter Are there any future projects in sight?

Ragazzoni I can see the possibility of extending our research to developing countries on the basis of our experience here in western Europe.



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 CTT Moscow



Editorial



Dear Reader,

2008 ends with the world in the worst economic crisis since the end of World War II. Virtually every supplier of goods or services has already been somehow affected by this situation. WAMGROUP[®] is no exception. On the other hand, every crisis brings opportunities. For this reason WAMGROUP[®] has decided not to cancel any of their investments but to simply reduce them, thus adapting to the current conditions.

Despite the global dimensions of the crisis, its effects are not the same everywhere. While western European economies are facing recession, fast developing ones, like China, simply rescale their budget to a slightly more modest growth rate. We at WAMGROUP® are determined to provide our customers worldwide, in 2009 too, with the same quality products and services which they have been able to enjoy so far.

To all our readers Happy Holidays, a healthy New Year and a hopefully quick recovery of the economy.



Michael Grass WAMGROUP[®] Marketing Communications Executive

INDIAN CUSTOMER'S SATISFACTION LETTER



WAM Japan at POWTEX 2008 in Tokyo

POWTEX, from 28th to 31st October 2008 in Tokyo, brought together more than 230 top manufacturers, a number that surpasses even last year's event in Osaka. To make the exhibition easier for visitors to understand, exhibits were presented in zones entitled "Manufacturing, Processing Equipment", "Instrumentation, Measuring & Laboratory Equipment," and "Materials,



Engineering, Information". Forums provided the latest information on different topics, and daily sessions were held in which participating companies explained their products and technologies.

WAM Japan, who participated for the first time, reported a huge success with a variety of visitors from different industries.

SEPCOM[®] FARM - HOW TO COMPLY MOST EFFECTIVELY WITH THE EUROPEAN UNION'S NEW NITRATE DIRECTIVE

BY PROF. ALESSANDRO RAGAZZONI, RURAL ECONOMICS & ENGINEERING DEPARTMENT OF THE UNIVERSITY OF BOLOGNA, ITALY

By now the problem of pollution of surface and underground water can no longer be ignored. Undoubtedly the negative impact of animal farming has been decisive as regards nitrate concentration in the soil. For this reason, recently countries from all continents have introduced standards to limit this worrying phenomenon from increasing further. Compliance with the recent norm on agronomic use of animal farming effluents (Italian Ministerial Decree of April 7th, 2006) will bring changes in farm management.

Consequently, in certain cases where production of effluents is higher than the admissible load on the soil, this might create problems for the farmer, such as the requirement for larger manure storage tanks, larger areas for manure distribution with longer distances to cover. All this, of course, implies higher costs too.

Assuming that such problems will arise more and more frequently, farmers will be exposed to increasing risks. It is, therefore, useful to take a new management approach which favours reduction of both transport and new distribution areas. Furthermore, it is becoming



more important to evaluate the fertilizing power of the farming effluent after being separated in solid and liquid phase, where nitrogen is contained in the solid phase.

The SEPCOM® Farm fits those needs perfectly. Together with the Department of Rural Economics & Engineering of the University Bologna, of WAMGROUP® has formed an agreement on research for an in-

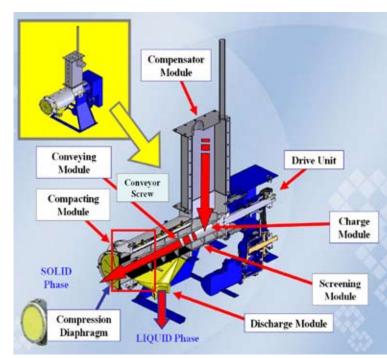
depth analysis of the problem of how to manage animal farming effluents, both from an economic and an environmental point of view. The main objective is to evaluate the convenience of using a screw-type solids-liquid separator. This seems particularly interesting because

> of the innovative aspects introduced by WAMGROUP[®] into product and process design. In particular, machine components manufactured from engineering polymer SINT[®] should not go unmentioned.

The analysis was partly a comparison with other similar separators present on the market. First results in laboratory and field tests showed considerable advantages of SEPCOM[®] Farm over its competitors, mainly due to the polymer screw.

The separating effect produces agronomic and management benefits. Looking at the two phases the following becomes evident:

▶ While there is less energy required to distribute the separated liquid on the fields, the problem of smearing over the crops is greatly reduced.



Moreover, the separated liquid is more suitable for fertilization through irrigation with reduced addition of chemical fertilizers and lower costs for the farmer. In addition, the period suitable for distribution is extended, thus reducing the storage volume.

► The solid separated, on the other hand, can be used in pre-ploughing and possibly be destined to the fields most distant from the farm, generating lower costs and quicker delivery than common manure. Finally, the separated phase can be sold to fruit farmers or winegrowers who require organic fertilizer.

The preliminary research results have shown that in some of the farms monitored, savings in effluent management range between 0.30 and $1.00 \in$ per cubic metre of effluent separated locally, in relation to the distance to cover and to the final destination of the separated solid.

In conclusion, to illustrate the problem of animal farming effluents to someone who is not from this sector, it might be interesting to know that the volume of effluent produced in ten years, for example, by the one billion pigs in China, would fill a one-metre deep lake of the size of Holland.

www.wamgroup.com

RONCUZZI[®] - COMPANY PROFILE

NEW PREMISES FOR THE WAMGROUP® MEMBER NEAR RAVENNA



RONCUZZI[®] truly is a piece of Italian industrial history. The company's origins go back to the year 1898, when the name was first mentioned in the annals of Ravenna, a historic town on the Adriatic coast of northern Italy. A first registration of the company took place in 1907. As one of Italy's foremost seaports located near the fertile fields of the lower Po valley, Ravenna favoured the development of industries inside and around its harbour. RONCUZZI® soon became an important supplier of conveying equipment and plant mostly for agricultural goods in bulk and in bags produced in the area. Over the decades the company developed great

expertise and know-how in engineering solutions for bulk solids storage and handling, such as grain, cork, soy, cement, gypsum, clinker, kaolin, alumina, fertilizers, pellets, coke, biomass, etc., as well as loading and unloading bulk and bagged materials from ships.

With its incorporation into WAMGROUP® shortly before the turn of the millennium, RONCUZZI® began to focus on standardizing their Bucket Elevators, Chain Conveyors and Belt Conveyors as complementary equipment to the Group's already vast product range. Furthermore, WAMGROUP®'s great experience in dust filtration technology helped



RONCUZZI[®] crusher screen in the port of Ravenna in 1920

RONCUZZI® to modernize their grab loading hoppers adding widely appreciated innovative solutions to the product.

Being used to designing and manufacturing extra heavyduty equipment, RONCUZZI® enabled WAMGROUP® to extend its range of Screw Conveyors, Mixers, Rotary Valves and Archimedean Water Screw Pumps towards significantly larger sizes. More recently, Building Site Silos for Dry Premixed Building Materials along with truck-mounted transport and on-site set-up equipment have been added to the company's product range.

In September 2008 RONCUZZI[®] moved to new premises in the outskirts of Ravenna. On a surface area of 27,000 square metres a brand new factory with a roofed area of 11,000 square metres was erected which offers all the advantages of a green field project in terms of space, internal logistics and state-of-the-art manufacturing equipment, as well as compliance with the latest European health and safety directives.



Sand blasting plant in the new factory including RONCUZZI® Bucket Elevators www.roncuzzi.com

BUILDING MATERIALS PRODUCTION IN POLAND

WAM POLSKA SUPPLYING ATLAS GROUP



WAM® screw conveyors and valves in ATLAS gypsum processing plant

In December 2007, the Polish ATLAS Group completed a plant for the production of natural gypsum for their customer, NIDA GIPS, in Niwnice, Poland.

At a production capacity of 4,500

tonnes per month the plant is the biggest of its kind in the country. NIDA GIPS brings the raw material with a maximum lump size of 300 millimetres from their own quarry mine to the plant. The process starts with a crusher from which the gypsum goes through a series of grinding mills and screens followed by a fully automatic production line. The latter is mainly formed by a drier and a number of conveyors that take the gypsum to the storage silos.

The finished product, which is either packed in bulk bags or filled into tankers or open trucks, is later used by the building industry for wall plastering and tile manufacturing, as well as medical or dental plaster.

WAM Polska was awarded an order from ATLAS for heavy-duty CAU Trough and TP Tubular Screw Conveyors, WAMECO[®] type Dust Collectors, as well as VL-type Slide Valves and VFS-type Butterfly Valves.

The project was not the first one in cooperation with ATLAS who, as market leader in building material processing plant engineering in Poland, acknowledge the superior quality of WAMGROUP® equipment.

www.wam.pl

MAP[®] MIXER FOR DAIMLER FOUNDRY IN GERMANY

The light metal foundry of automotive giant, DAIMLER AG, in Mettingen, near the group's German headquarters in Stuttgart, has been using a MAP[®] batch mixer supplied by EMT GmbH since June 2005.

In Mettingen DAIMLER manufactures cylinder heads, steering and crank boxes, oil sumps and gear box casings for their prestigious Mercedes motor cars. The connected core making plant is operating 24 hours a day.

During the production of foundry sand cores different types of crumbling sands are required. First there is surplus non-abreacted moulding sand. Next is abreacted foundry sand derived from moulding. Finally there is the broken core. Those sands are valuable raw materials which are reintroduced into the manufacturing process. To be able to do that, however, each type of sand has to be reconditioned. This is done by putting them all together into a mixer. Inside the machine, in a single short



MAP[®] Batch-Type Ploughshare Mixer in DAIMLER foundry in Mettingen, Germany

process, reacted fine sand is produced by chopper-enforced addition of amine gas. The customer is reported to be more than happy with the performance of the unit.

www.emtgmbh.de

The Best Deal in Bulk Solids Handling & Processing

SPECO® EQUIPMENT FOR A FRIENDLIER ENVIRONMENT

THE LATEST GENERATION OF WASTEMASTER[®] COMPACT PLANT FOR PRE-SEPARATION OF SOLIDS FROM WASTE WATER IS GAINING ACKNOWLEDGEMENT BY OPERATORS WORLDWIDE



WASTEMASTER® TSF

A soften happens during the human life cycle, when technology meets certain limits that might seem insurmountable, one rediscovers the immense possibilities offered to us by nature. For instance, how easy purification of water can be by letting it simply run through an environment which is particularly rich in plants and certain microorganisms able to absorb various inorganic compounds dissolved in the water, to concentrate and reconvert them into live organic substances.

Any of such biological systems, however, require a pre-treatment by which the coarse particles are removed along with any inorganic substances which cannot be used, such as glass or plastics, or substances that might deteriorate if present in large quantity (sludge, grease, or oil).

This can be achieved by the use of three machines. They either come as single units with each one dedicated to one task only, or they

can be integrated in a compact WASTEMASTER® plant. Such compact plants are the ideal solution for holiday resorts, shopping malls, as well as open-air sports facilities like, for example, golf courses. The three tasks consist of screening solids from liquid, de-gritting and de-greasing the waste water. The SPECO® Division of WAMGROUP[®] has been designing and manufacturing machines of this kind since 1978. Over the last thirty years more than 1,000 Archimedean Water Screw Pumps and hundreds of single and combined mechanical waste water pre-treatment units have been sold to applications in all five continents. In recent times users have particularly enjoyed the high efficiency and low energy operation of SPECO® equipment in phytopurification.

www.speco.it



TOREX[®] Seminar on Environmental Protection and KCS-type Silo Safety System

Bangkok, Thailand, 17th October, 2008



Fabrizio Silvestri of TOREX[®] giving his talk on silo safety technology

A ssisted by WAM Thailand, in October 2008, TOREX[®] held their first seminar on environmental protection and silo safety in Thailand.

A large number of key customers from different industries participating at the event showed great interest in the TOREX[®] KCS safety system.

Mr Fabrizio Silvestri, sales manager of TOREX[®], introduced the participants to the technological aspects of silo safety, whereas Mr Jirapong Vachirasoponkit, sales manager of WAM Thailand, provided a demo session during which the great economic and technical advantages of the KCS-system in terms of protection of people, environment and equipment during silo filling by tanker were highlighted.

The great success of seminars of this kind makes WAMGROUP® even more determined to organize such events in future.

www.wamthai.co.th

WAM PRODUCT RECEIVING PRESTIGIOUS AWARD

In October 2008, the Group's Croatian manufacturing subsidiary, WAM Product, received the "Gazele", a prestigious prize awarded by BUSINESS. HR, the country's leading economic magazine, to enterprises with a particularly high growth rate. WAM Product came 7th in the highly industrialised Varaždin region among the fastest growing local companies.

Starting production back in 2003, as one of WAMGROUP®'s key manu-

facturing subsidiaries, WAM Product since then has been adding mainly fabricated items to their product range. These products are marketed through WAMGROUP[®] trading subsidiaries all over Europe.

> WAM Product's general manager, Giorgio D'Ascenzo, receiving the award

www.wamproduct.hr



WAM MOSCOW STRIKING AT CTT 2008

The CTT trade show in Moscow, which was held in the country's capital last June, has grown into Russia's foremost exhibition for the Construction & Building Industry.

Today, both foreign and local manufacturers of concrete batching and asphalt mixing plant, as well as end users from Russia and various former Soviet Republics trust in WAMGROUP[®] products.

WAM Moscow attracted considerable interest from a large number of visitors at their stand.



www.wammoscow.ru

WAMGROUP[®] AT POWTECH

The three-day exhibition, POWTECH 2008, ended on October 2nd. The exhibition with complementary themes once more made the Nuremberg Exhibition Centre the international get-together for process technicians, process engineers and production managers from a wide range of industries such as chemicals, pharmaceuticals, food, quarrying and earthworks, cosmetics and ceramics. Over 1,000 exhibitors presented their latest developments and trends to some 15,000 trade visitors from all over the world.

WAM GmbH, EMT and OLI Vibrationstechnik showcased the Group's latest products attracting a large number of customers' interest.



WAM Gmbh, EMT and OLI Vibrationstechnik in Nuremberg, Germany www.wamgmbh.de

GOOD VIBRATIONS FOR OLI® FROM SAIE 2008 IN BOLOGNA

Once again, OLI[®] participated at SAIE in Bologna, Italy, one of the leading European events devoted to architecture and building and an unmissable appointment for companies keen to discover the latest novelties and innovations showcased by exhibitors.

The interest shown in the OLI® range of products, despite the current crisis, gives the Group, confidence in future sales.



OLI S.p.A. at SAIE in Bologna, Italy

www.olivibra.com

Next Issue Preview



The core of a screw conveyor is its helicoid flighting. With screw conveyors being the core product of WAMGROUP®, it becomes obvious that these components have to be manufactured within the Group. However, this did not occur before 2004 when FLITECH®

was set up near the shores of Italy's longest river, Po, in the province of Mantua. Since then, FLITECH® has developed from internal supplier to the Group into a marketoriented company with a wide range of products for various industries.

www.flitech.it

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