



Metering with a new precision: the IZMAG™ A visually as well as hygienically perfect flow meter with state-of-the-art data communication - GEA Diessel has created this innovation.



GEA Diessel signs new contract with Julphar in Ras Al Khaimah GEA Diessel GmbH has recently signed a 13.5 million Euro contract with Gulf Pharmaceutical Industries (Julphar) in the UAE to provide processing equipment for the manufacture of insulin.

Radioactively contaminated stainless steel: GEA Diessel takes immediate steps to introduce long-term quality assurance measures.

Dear Readers

Everything is in a state of flux, as the saying goes. These words are especially valid for our activities at GEA Diessel and for the range of our customers' operations. The changing times are accompanied by new innovations coming onto the market, technical progress and new advantages for all GEA Diessel users. In future we will be informing you of all these important developments and events more rapidly and thoroughly through the pages of our newly created DIESSEL NEWS.

At regular quarterly intervals over the DIESSEL NEWS we would like to involve you as directly as possible in our activities and our success. Reading through our pages you will experience first hand what to expect in future in our company's delivery programme for the pharmaceutical and biotech as well as food and beverage industries. Which new advantages do our latest developments have to offer you? Where are the new systems already being tested? With DIESSEL NEWS you will always be up-to-date.

From now on, thanks to detailed and up-to-date announcements in each future edition, you will be kept in the picture as to up-coming trade fairs, exhibitions, road shows, other dates involving GEA Diessel and you'll always know where you are able to meet your contact at our stands. Should you have missed an interesting event – no problem: Our reports will review what you missed and what was new to see and experience.

In DIESSEL NEWS we do not just want to reveal all that is important about us, our products and their possibilities. Rather, we would like to initiate in a more positive way sharing of information between our customers and readers. The field staff of GEA

Diessel is looking forward to let all users benefit from their experience with our systems on site. Experts will report on general plant engineering and its planning from the product specification stage right through to the decisive questions regarding international legislation, rules and standards.

We hope to offer you through regular and up-to-date information a definite advantage and thus develop even greater cooperation with GEA Diessel.

Best wishes.

Heinz Waltersdorf
General Manager
GEA Diessel GmbH



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Metering with a new precision: the IZMAG™

A visually as well as hygienically perfect flow meter without any moving parts? GEA Diessel has created this innovation. The electromagnetic standard flow meter of the type IZMAG™ has been successfully on the market since January 2010 and is already widely established in various organisations both at home and abroad.

Effective use of resources and minimising risk. Only two keywords which are of real significance for manufacturing companies. Quality is demanded at the highest level especially for sensitive manufacturing processes such as those in the food, biotech and pharmaceutical industries. When it comes to manufacturing beverages or other liquid foodstuffs then there are many tasks and questions which our process engineers are confronted with. In order to monitor and optimise what is happening during the production process it is not only important to know if something is flowing but also how much is currently flowing through the pipe work.

The new electromagnetic standard flow meter IZMAG™ fulfils these requirements at the highest level. With over three decades of flow measurement experience the developers responsible for its introduction continue in the tradition of outstanding quality applied to the world famous electromagnetic flow meters of the type IZM-L™ and IZM-S™ from GEA Diessel.

“Cost-effectiveness is the focal point”, product manager Lars Knigge explained the concept of the Hildesheim based developers: “IZMAG™ is the watchword for very precise measurement data, even in low flow regions and in the critical temperature ranges up to 165 °C. Additionally, its flexible process integration and optional auxiliary functions provide a convincing individual system solution.”

A glimpse of IZMAG™ in operation shows what is meant: The standard meter can be placed exactly in the correct position for the process plant. Depending on the situation, installation is possible as either a compact unit or as separate measurement and indicator components. The electronics cabinet and display are rotatable by 360° and thus can be read from any direction. Using the highly stable “IN-CAL” module the electronics are constantly monitored.

To optimise the work flow the IZMAG™ has been expanded using Profibus and integrated to user requirements in the network. With the aid of a laptop and via a Bluetooth interface the user can conveniently read off the current flow rate or change the parameter setting.

A further factor that contributed to the enormous market success of IZMAG™ right from year one was its immediate eye catching appeal: GEA Diessel have succeeded in building a meter of classic design, free from mechanical wear and with an outer appearance reflecting its maximum hygienic standard and optimum user value at a competitive price. This sophisticated global player can look forward to a successful future.

Author
Lars Knigge, Product Manager



GEA Diessel signs new contract with Julphar in Ras Al Khaimah

Author
Ralph Schulze, Head of Division Pharma & Biotech

GEA Diessel GmbH has recently signed a 13.5 million Euro contract with Gulf Pharmaceutical Industries (Julphar) in the UAE to provide processing equipment for the manufacture of insulin. The project started in summer 2010 and is due for completion by the end of 2011. When in full production the plant, which will comply with the latest EMEA regulations, will produce 1.500 kg of insulin crystals a year to help make the life-saving drug more widely available to patients in the UAE and throughout the Middle East.

Julphar is one of the largest pharmaceutical companies in the Middle East. This order for GEA Diessel is part of the final phase in a project valued at over 105 million Euro. The contract was signed on 3rd May 2010 at Julphar's headquarters in Ras Al Khaimah by Dr. Ayman Sahli, General Manager of Julphar and Heinz Waltersdorf, Managing Director of GEA Diessel.

This is the latest project in a long-running partnership between GEA Diessel and Julphar that has lasted over 13 years. Eight years ago, for example, the plant Julphar VI, which was one of the largest of its type, was successfully commissioned and today it produces annually up to 94 million units of medicines in the form of syrups, suspensions and oral drops.

Between now and the end of 2011 GEA Diessel will provide engineering, delivery, start-up and qualification of the entire system for the production and distribution of purified water, water for injection and pure steam, as well as for various units of process equipment and all pre-assembled Cleaning In Place units (CIP systems). In addition, the scope of supply includes all the necessary pipe work, distribution systems for the clean utilities and production processes including CIP supply and return piping.

Commenting on the project Dr. Ayman Sahli said: "We are proud to proceed with the final phase of the insulin crystals project. Julphar is committed to the highest quality we seek to ensure this by partnering only with the best suppliers in the industry." Heinz Waltersdorf was understandably delighted with the new contract which continues his company's fruitful cooperation with Julphar. Already in the bidding phase Heinz Waltersdorf stressed that the management at Julphar and the GEA Diessel team were in close contact regarding the coordination of critical product and project specific requirements. The end result was a successful contract agreement.



Radioactively contaminated stainless steel: GEA Diessel takes immediate steps to introduce long-term quality assurance measures

Author
Stefan Schindler, Quality Manager

On 10.02.2009 we received information from a number of different quarters, including the German Engineering Federation VDMA and the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, that radioactively contaminated stainless steel originating in India might have been imported into Europe. A number of Indian steelmaking companies quickly came under suspicion. The material was contaminated with cobalt-60, a highly radioactive isotope.

Immediately after receiving this information we reviewed our entire supplier base and identified 252 suppliers from whom we obtain stainless steel or stainless steel products. These were sent a questionnaire, drafted by the Legal Department of the GEA Group and the procurement departments of a number of GEA companies across segmental boundaries and agreed in consultations between them, with the request for information on the suppliers' sources of stainless steel and on the precautionary measures they take to ensure that the material is free of contamination.

We received the data we needed from all suppliers, together with the confirmation that they had not supplied us with any contaminated material during the period in question. This was a great relief to us.

Parallel to the measures described above, Quality Management and Materials Management introduced a monitoring system to detect radioactivity with a measuring device at goods reception, and also made appropriate additions to our emergency alarm plan. Radioactivity is now constantly monitored, and the data is recorded and stored electronically for a predetermined period.

Through the measures described above, we at GEA Diessel, also acting in concert with other associated companies of the GEA Group network, have been able to demonstrate that we are in a position to react quickly, effectively and sustainably to unforeseen events that may give rise to a crisis situation.

On the fly in a new control generation

Process controls in the 90s were frequently based on the Simatic S5 system. In the meantime the manufacturer has pulled this system out of the market but still offers limited support. The change over to System S7 regularly presents process plant operators with a special challenge. Just how a successful conversion programme is brought off is indicated by the following example from 1997 for a plant delivered to a well known beverages manufacturer.

Author
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The task: Eight Simatic S5-135U PLCs in a complicated procedural beverage production plant were to be replaced by Simatic S7 CPUs of the type 414-2DP in order to provide an automatic solution based on a new platform with a functionally guaranteed future. The requirement included that the conversion was to be carried out with practically no interruption to operation or production. Also, the usual procedures should remain unchanged in future.

After careful planning GEA Diessel, working in close cooperation with the plant operator, initiated the preparation and execution of the changeover in eight stages. For each one of them a specific weekend was agreed with the customer in order to minimise interruptions in production and avoid peak periods. 3000 inputs and outputs were removed and replaced during the changeover.

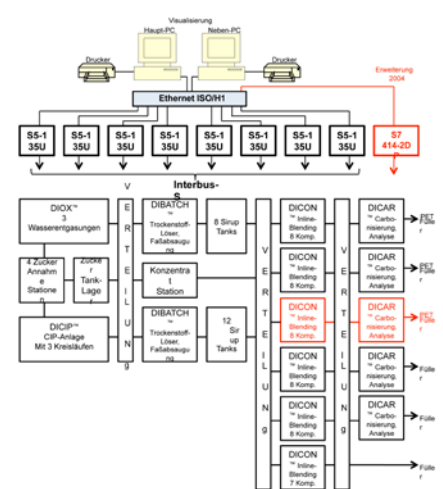
At each weekend a CPU with its attendant valve controls and meter modules was exchanged. All other modules were thus available for production on Monday. The modules belonging to the CPUs were advantageously re-structured and at the same time a complete production line was reassigned. In this way the operation of all other production lines remained undisturbed. After the exchange there was a period of production support lasting a few days as at the weekends not all the production conditions could be tested.

Of great importance was the decision to not only convert the previously available operationally developed S5 software configuration but also to reconfigure the current S7 software with the established parameters. Thus, all experiences, innovations, help with operation and maintenance of the current software version leading to a functional improvement were integrated into the system.

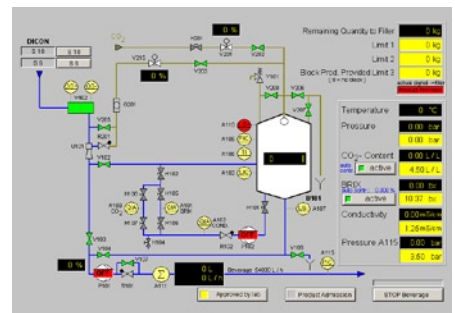
The changeover ran precisely to schedule. Numerous special requirements were completed as required, e.g.:

- Simultaneous integration of a new filler by adapting the filler interface
- Changing the valve control from Interbus-Loop to valve clusters
- Changing the rapid counting inputs from Interbus-S to Profibus-DP Counter-Module with the corresponding adaptation of the flow meter
- Conversion of the concentrate station from tanker loading to IBC-Container

OVERVIEW



- Enlargement of the syrup room with an additional S7 414-2DP CPU for controlling new components:
 - 1 granulated sugar receiver and dissolving unit type DI-SUGAR-H™
 - 1 mixer unit type DIMA™ with buffer tank and drum emptying station
 - 1 pasteurising unit with 6 syrup tanks
 - 1 mineral water line with control of pumps and valves at the source, filter units, water deaeration system type DIOX™ and tanks



The modified system introduces a multitude of new production advantages:

- Improved accuracy and less product loss in cases of production interruption / highest precision using Brix calculation appropriate to ICUMSA formulae and improved Brix regulations (ICUMSA: International Commission for Uniform Methods of Sugar Analysis)
- Avoidance of foam formation by carbonation of critical beverages using combined CO₂ regulation via a pressure and control valve for the flow of CO₂
- Maintenance of the correct mixture relationships in the in-line dosing, even when the components have reached their maximum performance limit
- No product loss when production is interrupted by employing the latest control algorithms and computations to give rapid shutdown

With timely upgrades the user ensured that his process technology is always running on a future-safe platform and that his leeway for economic optimisation is successfully increased.

Important certification for GEA Diessel GmbH

To ensure mutual success in the project business at international level, recognised certification is an essential success factor and gains the confidence of our customers. Therefore, during 2009/2010 we again embarked on extensive system certification exercise. And with success – thanks to the dedicated GEA Diessel team staff and the successful implementation at our headquarters in Hildesheim. The following certifications were attained or confirmed.

DIN EN ISO 9001:

In September 2009 the most successful certification took place for the existing quality management systems to the latest revision of DIN EN ISO 9001:2008. We endeavour to fulfil and constantly continue to develop our management system through external certification and the accompanying evidence of continuous improvement. The management system is our tool for the continuous further development and securing the competitiveness of our company. Thus we see

Author
Stefan Schindler, Quality Manager



the certification process as a permanent part of our company's tasks through continuous planning and implementation of measures which contribute to the achievement of defined company targets.

ÖKOPROFIT Enterprise 2008/2009:

In November 2009 we received the ÖKOPROFIT Enterprise 2008/2009 award. ÖKOPROFIT stands for ÖKOlogisches PROJekt Für Integrierte UmweltTechnik (Ecological Project for Integrated Environmental Technology), which as an Agenda 21-Project has made a name for itself worldwide. With this award all our endeavours were rewarded to put the principle of sustainability into practice and to cut costs with environmentally relevant measures, thus making a decisive contribution to environmental protection. In this way, decisive steps have been made towards a possible certification according to DIN ISO 14001 or EMAS ordinance. And we will continue in this direction.



ASME Certificate "U-stamp":

The recertification of "ASME Certificate of Authorization – Manufacture of Pressure Vessels" for the USA and Canada in May 2009 confirmed, that for the next three years GEA Diessel continues to fulfil the requirements for the manufacture of pressure vessels and their export to these markets. The certificate has an extremely high status value and as a result of the high requirements the number of certified organisations is in decline. With its qualified team GEA Diessel has proven that the requirements could be safely and professionally fulfilled.



Approval of "Manufacturing License of Special Equipment People's Republic of China":

With the certification "Manufacturing License of Special Equipment People's Republic of China" for the export of pressure vessels in the classification "D1" in May 2010 it was confirmed that for four years GEA Diessel fulfils the requirements for the production of pressure vessels and their export to the Chinese market. The certificate has an extremely high status value as the requirements were tightened in 2004. With its qualified team GEA Diessel has proven that the requirements could be safely and professionally fulfilled.



“Your success is our future”

Under this motto GEA Diessel participated in the first ‘Occupation and Studies Information Fair’ at the Goethegymnasium (grammar school) in Hildesheim at the end of August 2010. Mr Fricke from the Human Resource Department and Mr Bode, dual student in the 5th semester at the Technical University of Mannheim, answered the questions of many interested students. Afterwards they praised the open and relaxed conversations. On both sides it is already clear that this path will be continued. The first interesting applications for training or study at GEA Diessel in 2011 came in very shortly after the fair.

In September 2010 a one week Management Information Game (MIG) took place in the rooms at GEA Diessel with participants from the Andeanum Grammar School and the Scharnhorst Grammar School. For several years the event has been led by Mr Markus in cooperation with other companies. A plan business is lead by both male and female student, who must ensure its continued competitiveness and market strength. The dynamic business game conveys knowledge, demonstrates economic relationships, motivates the students and gets them involved in commerce and industry.

What has GEA Diessel to offer young people?

In addition to professional vocational training to become a plant mechanic (f/m) or industrial manager (f/m) GEA Diessel offers talented school leavers of both sexes with a strong interest in technical and scientific subjects a dual course of study in the disciplines of engineering/plant technology. The participants study at the Technical University of Mannheim and undertake their practical training in the Hildesheim-based company. The Technical University of Mannheim is an accredited establishment and has cooperated with GEA for several years and is also used extensively by Mercedes-Benz.

For students the dual training offer opens up an exciting and challenging academic education and practical experience with the typical GEA Diessel project business activities, the foundation stones for later entry into business life. The advantage to the company lies in the training which meets our requirements both practically and theoretically. Therefore the commercial and organisational processes within the company need not be taught after completion of studies; they are most effectively established. GEA Diessel is able to fill long-term positions made available through retirement. The students receive a training allowance and in addition to the study fees they are placed in accommodation in Mannheim. Study and earn money – it happens at GEA Diessel!

After the vocational training GEA Diessel develops its workforce further. The company promotes on-the-job training for occupational advancement (for example technician or foreman) and subsequently enables motivated employees to undergo an accompanying course of study. Employee development is an important means of securing and expanding the company’s position in an ever more rapidly changing market. Regular training courses and an internal communication are therefore a must – Teamwork is the keyword!

Author
Michael Beecken, Head of HR

