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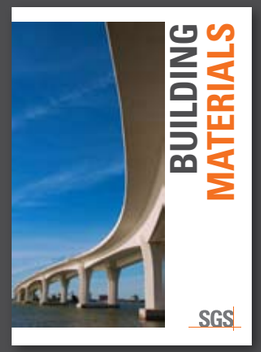
SGS INTRON BULLETIN

INTEREST IN CHINA FOR NEW EUROPEAN CONSTRUCTION PRODUCTS REGULATION

MORE SAMPLING FOR DIFFICULT BATCHTESTS

SGS

It's been almost a year now since INTRON became a member of the big SGS family. Many alliances have experienced this at first hand and enjoyed the benefits of a wider range of services and the SGS global network. This will now be noticed by all our alliances through the introduction of SGS company logo at INTRON. In the meantime, you'll find some examples in this SGS INTRON bulletin.



SGS + INTRON = SGS INTRON

Not all take-overs are a success. How are things now with SGS INTRON? One of the main reasons for INTRON to become part of the SGS organisation was to realise its international ambitions. SGS supports this in word and deed. SGS INTRON is currently forming a Construction Competence Centre, thanks to substantial investment by SGS. The pillars of this international service are based on the durability and sustainability of building materials. This has clearly filled a need with the skills and experience SGS INTRON has acquired over previous decades in a Netherlands and European context. You can find some examples in this bulletin.

Specific contact between the employees of SGS and SGS INTRON was sought and quickly found, tailored to the needs of our alliances. We were pleasantly surprised at how quickly a specific question was put and answered in such a large organisation as SGS. It worked in the opposite direction as well when SGS INTRON was quickly found for specific questions on building materials. This will certainly contribute to the development of our international ambitions.

Of course, we'll keep you up to date in the next issue of the SGS INTRON bulletin.

GERT VAN DER WEGEN

The design and appearance of roofs and facades determines the appearance of a building and also of the users of that building. That's why it is important for new insights by architects, the wishes of (future) occupants and/or owners and other requirements to be translated into systems and products for those roofs and facades. In addition, our vision of roofs will probably be changed completely in coming years by all kinds of developments in the areas of climate, environment and sustainability. The roof will go from a static component of the building now to being a dynamic component. It will be a component that must not only be functional (insulating and watertight) but also an essential element that helps meet our energy needs and contributes to a better living environment.

ALWAYS AWARE OF THE LATEST DEVELOPMENTS

The three INTRON sectors (certification, laboratory and consultancy) all play a key roll in the roofing industry. INTRON Certification supports customers as a "notified body" (European level) and as an "accredited institute" (Netherlands certification regulations) for certification of any type. After all, products used on roofs and facades must always comply with Dutch law and KOMO®, as well as European laws and regulations. It is always important to keep up with the latest developments in order to find suitable solutions in conjunction with the customer. That's why experts from INTRON Certification take part in European and Dutch working groups and commissions relating to the areas of roofs and facades. This continuous knowledge generation and development is a must for continuing to serve our customers at the desired level.

EVERYTHING TO DO WITH ROOFS UNDER ONE ROOF

CONSULTANCY: JOS LEMMENS JOS.LEMMENS@SGS.COM
CERTIFICATION: CHRISTINE KLOMP CHRISTINE.KLOMP@SGS.COM
LABORATORY: ARNO MEIJS ARNO.MEIJS@SGS.COM

TOTAL PACKAGE: CONSULTANCY, TESTING AND CERTIFICATION

INTRON has invested substantial sums in the consultancy and laboratory areas over recent years. This has included investment in the purchase of test equipment, investment in knowledge transfer and employee training, and investment in offering the customer a total package of consultancy, investigation and certification, always while making a clear distinction between consultancy and certification. Thanks to these investments, we can provide a more efficient and better service for our customers in the roof and facade sectors, who have been served by Certification for years.

DAILY IN THE LAB AND ON THE ROOF

We carry out the most diverse testing every day in the INTRON laboratory, including analysis of bituminous and synthetic roof cladding and insulation materials. The tests cover many areas: physical tests, durability tests, ageing tests, etc. These tests are characterised by:

- Quality, because INTRON strives for RvA accreditation (RvA: Accreditation Council) for the tests.
- Good service by carrying out the work in house, based on the years of experience of our certification staff.
- Performance by staff with up-to-date knowledge because they deal with innumerable materials every day, both in the lab and on the roof.
- A further strength is that INTRON is involved in the very latest developments in the roofing sector. Collaboration with Certification sees new products developed in the lab and existing materials modified before they come to the market.

INDEPENDENT AND EXPERT ADVICE

Based at our sites in Sittard and Culemborg, the consultants deal with roof questions on a daily basis. What caused this damage? How can I avoid this damage in future? Can you give me independent and expert correction and/or repair advice? Clients involve INTRON in all phases of a building project, whether it is a newly building maintenance, supervision or renovation. Requests for independent advice include:

- the most suitable roofing system when replacing old roofing;
- supervision of roofing work;
- tracing problems in existing roofing.

These issues relate mainly to roofing and insulation materials on pitched roofs (including roof tiles) and flat roofs. The Consultancy department also has years of knowledge and experience in the area of development of building materials, focusing on durability and the expectations and requirements of the future.

IN OTHER WORDS: WHEN IT COMES TO ROOFS, INTRON HAS EVERYTHING UNDER ONE ROOF!

PROJECT DOBBELSTEEN: MISSED OPPORTUNITY TO APPLY SUSTAINABILITY IN PRACTICE

FOR MORE INFORMATION: ULBERT HOFSTRA ULBERT.HOFSTRA@SGS.COM

Sustainable construction with maximum recycling of building materials. This is an idea which is gaining wider acceptance. We also know that there are attractive options. INTRON, for example, participated in a European project (IRMA) on the high-quality recycling of concrete aggregates. Old concrete can be used to make new concrete: the technology is there. It just has to be put into practice. INTRON approached a number of builders in the Netherlands, as well as local authorities. The municipality of Sittard-Geleen was not only interested, but also came up with a suitable project: Project Dobbelsteen. Just a stone's throw away from the old Sittard hospital which was due for demolition, construction of a new public building was in the pipeline.

CONCRETE FOR CONCRETE

INTRON is engaged as a consultant to the municipality of Sittard-Geleen, which wants to recycle building materials as much as possible. "This is a great opportunity to achieve something in the area of sustainability," says INTRON consultant Ulbert Hofstra. "Concrete rubble from the old hospital would be broken up for use as concrete aggregate to replace gravel and some of the sand in the new concrete. Project Dobbelsteen includes the construction of a large building containing a cinema, part of Zuyd University, the city library and shops. Already in the floors and walls of the parking garage much of the recycled concrete could have been applied."

LESS TRANSPORT TO AND FROM

The parties involved gave the idea a favourable hearing because of its many advantages. Some 20% of the material from the demolished hospital could be used as new building material in Project Dobbelsteen. This fitted in well with the aim of the project: to achieve maximum sustainability. Because the material - a total of around 20,000 tonnes of concrete waste was available on the spot, considerable savings could be made in terms of transport costs and truck movements. The demolition waste used would not need to be transported, and a major portion of the materials for making concrete for the new building would not have to be transported in. In addition, demolition waste, provided it is carefully selected and broken into the correct particle size, is a relatively inexpensive and high-quality building material.

CONCRETE AGGREGATE IN TEMPORARY STORAGE

However, there were some doubts and obstacles to the plan. "Arranging meetings is difficult because there are many parties involved," explains Ulbert Hofstra. "There is also the issue of linking two projects which each have their own speed. For example, the contractor doesn't want the building to be late just because the building material isn't available at the right time. We came up with a neat solution for this. As soon as agreement is reached on the use of the concrete rubble, it can immediately be recycled into concrete granulate with the support and quality control provided by INTRON, for example. Orbis, the owner of the hospital land, has to make it safe and level after the demolition. They can use the concrete granulate temporarily with the benefit that no additional soil will have to be transported in. Soil will be available for free when the Dobbelsteen building's parking station is excavated, probably in 2011. The soil can replace the stored concrete granulate as a final base, and the granulate can then be used to make the concrete."

ORGANISATIONAL PROBLEMS

A mobile concrete plant would have to come to the location to process the aggregate with cement, sand and water to make the concrete. "That also requires close supervision," says Ulbert Hoftstra. "The use of recycled aggregate in concrete isn't a problem, but a change to the concrete recipe is needed. Not every concrete facility is set up for that." These sorts of 'changes to the standard' made the Dobbelsteen project developers reluctant to accept the schedule. This would also create too many limitations to the way Dobbelsteen would have to be constructed. The local authority would step in as an intermediary and temporary receiver of the demolition waste in order to transfer it to the constructor before construction starts. The hesitation on the part of the project developer - and hesitation by the local authority to oppose them - led ultimately to abandoning the use of concrete aggregate. We see in this project that it was not the technical difficulties but its organisation which was an impediment to a successful result. In addition to organisation, the approach also requires that all parties are willing to work together and delivery quality. Combining demolition and construction successfully will be the focus of more deliberation in the future.

FIFTY YEARS OF TRESPA: A STRONG BRAND BUILT ON QUALITY

FOR MORE INFORMATION: ROB WOONINK ROB.WOONINK@SGS.COM

Trespa is well-known in the construction world. The brand name is even regularly used as a generic product name. This year, this top-quality sheet material for facade claddings, internal surfaces and other applications celebrates its golden jubilee. Trespa International B.V., headquartered in Weert, has expanded in 50 years to become a trend-setting business with branches and sales all over the world. In its strategy for the future, Trespa will focus on exterior applications with its successful Trespa Meteon product line: innovative facade panels in all kinds of colours and textures. Architects will find inspiration in the many options available, especially for use with non-residential buildings. One example is the facade at INTRON, because INTRON and Trespa have been collaborating since 1995.

KOMO CERTIFICATE

"Trespa approached us in 1995 to ask if we would certify their Meteon panels," relates INTRON Certification Manager Rob Woonink. "Trespa has for years had a KOMO attestation and product certificate - a guarantee of quality for the consumer." This was preceded by extensive research by INTRON. Rob Woonink: "To prepare for the certification, we evaluated the panels in their application situation, combined with the background construction, the insulation materials and the different kinds of fastenings and fastening methods, as advised by Trespa. The testing gave us a good idea of the performance of the product in a practical situation. The certificate is mainly a conformity declaration. It indicates that the internal procedures and the product itself meet the specifications given in the assessment guidelines."

CONSTANT QUALITY

INTRON Certificatie B.V. visits Trespa four times a year to check the quality control system and to take product samples for testing in the laboratory. INTRON also supplies the CE mark which is important for exports inside Europe. "Audits always run very smoothly," says Rob Woonink. "The employees at Trespa take quality seriously and take a proactive stance. They often answer our questions before we ask them." This is because of the importance that Trespa attaches to supplying a constant, high quality. "We find it important to manufacture following rigid guidelines so we can be sure that our products meet all requirements and building regulations," explains Marketing Manager Frank Smolenaers from Trespa. "We can be sure of that thanks to product testing and regular audits by INTRON."

STRONG PERFORMANCE

"The collaboration with INTRON is constructive from both sides," says Director Product Management & Quality, Marc Langelaar. "The KOMO certificate has value in the market; it gives the customer confidence in our product and so supports our sales. Additionally, we know a lot about the performance of our products through INTRON's research. For example, we know that Trespa panels also come under the building regulations and that they are very resistant to sunlight, moisture and vandalism. This is a durable and colourfast material. Thanks to INTRON, we know that our products do what we promise."

GEOFOX LEXMOND OPTS FOR INTRON CERTIFICATION

"WE WANT AN AUDITOR WHO IS MORE THAN A POLICEMAN"

Environmental consultancy Geofox Lexmond became a client of INTRON Certification on 1 October 2010. "We wanted to place all our certification with a single certification institution (CI) which could handle the whole package and offer continuity and flexibility," explains KAM co-ordinator Corinne Eeken (KAM: "Kwaliteit" quality, "Arbo" occupational health and safety, and "Milieu" environment). "In addition, we think it is important for audits to be carried out critically and with a knowledge of the subject by an auditor who not only knows the protocols but also the practice. That's how we came to choose INTRON."

CERTIFICATES CRUCIAL FOR CORE BUSINESS

Certification is important for Geofox Lexmond. Corinne Eeken explains why: "Our company and people are certified, among other things, forsoil sampling (BRL 1000), to carry out soil testing and soil decontamination (BRL 2000 and 6000) and for asbestos inventarisation. These tasks are part of our core business. Without certificates, much of our reason for existing would cease to be."

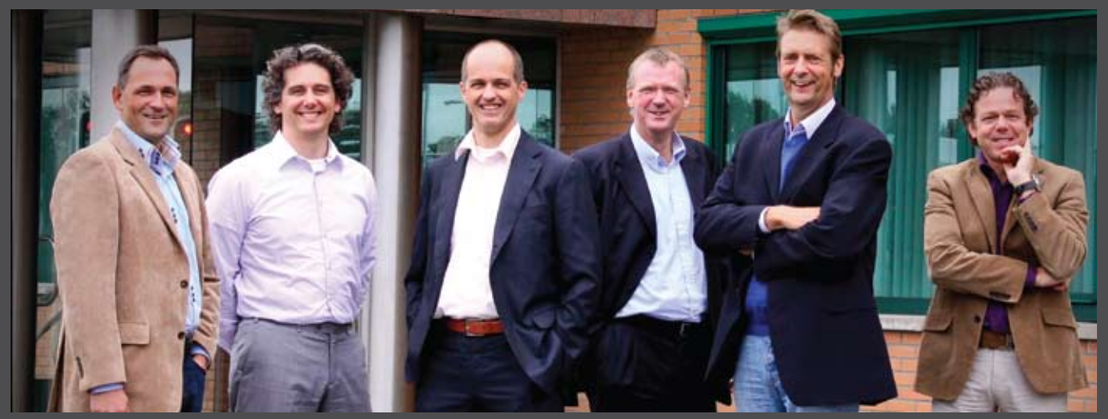
CRITICAL LOOK AT QUALITY

Geofox Lexmond is always on the look-out for ways to guarantee quality and further improve their products and services. "Aside from the certificates mentioned, we also have an ISO 9001 certificate and a VCA double star (contractor's safety checklist)," Corinne Eeken explains. "You can succumb to company blindness at any time. You no longer see where you can make improvements. That's why we think it's important to be checked by a certification institution that is critical and actively thinks along with us. We don't want an auditor who is just a policeman, but someone who takes that extra step. We want someone who says: have you thought of that yet? That's where you'll be able to implement an improvement."

THINK-ALONG AUDITOR

So far, INTRON has been very well able to fill the role of a think-along auditor, Corinne Eeken finds. "We are very satisfied. Our permanent auditor, Jacco van der Zalm, has worked in the real world himself and isn't easily led up the garden path. The way INTRON works allows room for improvement suggestions. That's what we want. In the first two months, INTRON carried out six field and four office audits at our company. Someone from INTRON is working with us an average of one day a week. And we also put in a lot of time. This way we think we can take our organisation a step forward again and again."

FLTR: RENÉ BUSSINK, GUIDO KEUTGEN, RENÉ VREUGDENHIL, PETER WIEGERS, WIM LEXMOND AND BOUDEWIJN TER HAAR



CONCRETE DAY

"Innovation in roles and technique" was the theme of Concrete Day 2010. INTRON and SGS had a joint exhibit.

Visitors to the SGS INTRON stand were told what the collaboration will mean. This year as well, the Concrete Day was an opportunity to get together with existing and new customers.

VALIDATED ENVIRONMENTAL INFORMATION FOR VAULTS AND CONCRETE WELLS WITH ECOGRANULATE

Van Dijk Beton's products include vaults and concrete troughs where the additional material in the concrete is not sand or gravel but only secondary materials. The material is ecogranulate from Van Bentum Recycling Centrale (BRC). Ecogranulate consists of small stones that come away when asphalt containing tar is incinerated in a thermal cleaning installation. The stones are burnt clean during the incineration. The ecogranulate is ready for use after being divided into different fractions. For Van Dijk Beton, which like Bentum Recycling is located near Rotterdam, the result is a locally produced additive for its concrete.

Aad den Boer, co-owner of Van Dijk Beton, realised that only detailed and measurable substantiation of the environmental features of his products would convince customers and public authorities of the environmental benefits. Working with Cees van Opstal from BRC, he decided to have a life-cycle analysis (LCA) carried out by INTRON, using the MRPI method. A review by a third party is part of the MRPI method.

The objective environmental profiles of the concrete wells and vaults using concrete with ecogranulate is now complete. A comparison with the environmental profile of similar products without ecogranulate was made during the sensitivity analysis in the study. All environmental effects in the environmental profile show a favourable effect on the profile of the use of ecogranulate.

MORE SAMPLING FOR DIFFICULT BATCH TESTS

MORE INFORMATION: ROELOF BRAAD ROELOF.BRAAD@SGS.COM

At INTRON, our staff are receiving increasing numbers of requests to carry out difficult batch tests. To satisfy this increasing demand and still be able to offer high-quality sampling, INTRON is currently training four employees from a SGS sisiter company in ‘sampling soil, moulded and non-moulded materials’.

The training is being given in accordance with Protocol 1000 for samplers. Knowledge and practical experience of protocols 1001, 1002 and 1003 are vital here. Because of his considerable knowledge of and practical experience with these protocols, Roelof Braad, INTRON expert in the area of sampling, has become an authority in the Netherlands. Roelof Braad explains: “I’m glad to transfer my knowledge to my four SGS colleagues, who are already experienced harbour assessors, where they carry out product checks of minerals, fossil fuels and oils”.

The four SGS colleagues will soon be fully qualified samplers. “As a result, INTRON will in the future be able to reach customer sites more quickly to take samples from difficult batches in the regions of North and South Holland and Zeeland,” Roelof Braad reports enthusiastically.

INTEREST IN CHINA FOR NEW EUROPEAN CONSTRUCTION PRODUCTS REGULATION

MORE INFORMATION: ROB WOONINK ROB.WOONINK@SGS.COM

In October 2010 Business Development Manager Rico van Selst travelled to China, at the request of SGS China, to give lectures on the transition to a European Construction Products Regulation (CPR) in 2013. This regulation is a logical next step towards a Europe without trade barriers. It is a path that started with the introduction of the European Construction Products Directive (CPD) in 1988, followed by the gradual introduction of by now 500 harmonised product standards, 1,500 harmonised test methods and 1,500 ETAs (European Technical Approvals - an alternative to standards).

BIGGER MARKET

“Chinese manufacturers of construction materials are very interested in the rules for exporting to Europe,” Rico van Selst has found. “Their exports include natural rock. Aside from the European standards, countries now also often have their own national regulations. That means a product tested for the Dutch market does not automatically meet all German requirements. The CPD and CPR aim as much as possible to harmonise standards for the measurement and specification of the performance of all construction products. This will result in a larger, more transparent market. Europe will become more interesting as an export area.”

CE MARK AS EUROPEAN PASSPORT

The CPR is also responsible for a uniform way of CE marking in all EU countries and for all construction products. As with the current directive, this will be on the basis of a number of ‘essential requirements’ for construction materials, especially in relation to health and safety for man, animals and the environment. Rico van Selst: “With a CE mark, the manufacturer guarantees that his product has the specified essential properties which link to the essential requirements for construction materials. Every manufacturer must test his product according to the same procedure, making product performance more comparable.”

ENVIRONMENTAL PERFORMANCE AS WELL

The directive also changes the third essential requirement of hygiene, health and safety. “From 2012 there will be a harmonised standard for leaching, and all construction products must be tested for this,” explains Rico van Selst. “The regulation will also introduce a seventh essential requirement: sustainability. This involves the environmental impact of construction products at a structural level. Life-cycle analyses will be needed to determine this. This is one of the areas where INTRON excels. With the knowledge we have in house, we can help manufacturers inside and outside Europe to prepare themselves for the new regulations.

MORE MARKET POTENTIAL

Unlike the directive, the regulation is obligatory. The rules are directly applicable in all member states. “It will also be more strictly upheld,” Rico van Selst assumes. “The importance of the CE mark is increasing. Those who stand for quality in the market soon find they have a large market within easy reach.”

KNOWLEDGE IN DEPTH

MORE INFORMATION: MICHEL BOUTZ MICHEL.BOUTZ@SGS.COM

If a tunnel, building excavation or underground parking station is to be constructed in an urban area, diaphragm walls are in many cases an attractive option. These concrete walls are placed in a trench in the ground. The advantage in densely populated areas is that no vibrations are produced when the walls are put in place. Diaphragm walls can also support large vertical loads. INTRON consultant Michel Boutz was involved in three such projects over the past six months.

DIAPHRAGM WALL MANUAL: BUNDLED EXPERTISE

As a concrete technologist, Michel Boutz was asked to join the CUR/COB diaphragm wall commission. “The properties of the fresh concrete and its composition determine to a significant degree the quality of a deep wall,” he explains. “Building at great depth brings risks and there have recently also been problems with diaphragm walls. Projects in Amsterdam and Rotterdam found leaks around the seams, with unpleasant effects such as subsidence of the nearby buildings and high repair costs. The aim of the commission was to achieve a quality improvement by bundling expertise in the area of deep walls. That’s what we did - literally. The Diaphragm Wall Manual (CUR report 231) has just been published and is ready for use.”

IMPORTANT BALANCE BETWEEN DESIGN AND EXECUTION

The commission believes many problems can be avoided, based on experience and knowledge. Michel Boutz: “One determining factor is the balance between the design and execution of the ddiaphragm wall. If the two don’t fit in well together, this can lead to leaks and durability problems. The manual describes how a deep wall must be designed and executed correctly. “We hope that the improvements specified will be proscriptive for future ddiaphragm-wall projects so risks and incidents can be substantially reduced.”

RAILWAY TUNNEL NEXT TO HISTORIC STATION BUILDING

The construction of a railway tunnel in the centre of Delft and right next to historic buildings is one of the projects mentioned in the manual. Here, there was a special problem: the groundwater on site was aggressive for concrete. Michel Boutz: “INTRON investigated whether changing the concrete mix was permissible in this situation, given the requirement for 100 years’ durability. On the basis of our knowledge of the chemical corrosion of concrete, we were able to confirm that it was possible.”

EXCAVATING IN NEW SOIL

A special use of diaphragm walls can be found at the Tweede Maasvlakte Rotterdam in the harbour area. Here, diaphragm walls were installed in new soil. After excavations along the shore they will form the quay walls, in water 20 metres deep. INTRON was also involved in this project. Michel Boutz: “We were asked to assess whether the quay walls will be safe and functional for 50 years. First of all, we assessed the quality of a test panel using a visual inspection and the analysis of concrete cores. Some production panels were also examined so we could come to a valid conclusion on the basis of multiple tests. The correct execution of these deep walls with sufficient top-quality concrete covering of the reinforcing is important, because sea water is also aggressive for reinforced concrete.”

COMPETENCE CENTRE AT SGS FOR CONCRETE AND DURABILITY

MORE INFORMATION: RICO VAN SELST RICO.VANSELST@SGS.COM

Within SGS, INTRON will act as a knowledge centre in the area of the durability of (concrete) structures and the recycling of waste and residual materials (sustainability). The management of SGS has approved a business development plan for the world-wide growth of INTRON in these two areas of expertise.

WORLD CHAMPION RECYCLING MINERAL WASTE MATERIALS

Construction is one of the areas where SGS wants to expand world-wide. The goals are ambitious: to double sales within three years. INTRON can also make a contribution here because INTRON has the specialised knowledge needed, for example, to carry out lifespan analyses for buildings. Business Development Manager Rico van Selst: “INTRON enables growth at the top end of the market. We are strong in consultancy at an academic level. Especially in the areas of durability and sustainability we’ve made a name for ourselves over the years. We are the champions in the Netherlands when it comes to the recycling of mineral waste materials: construction and demolition waste, and residual products from industry such as steel slag, fly ash, gypsum and sulphur.

HIRING IN UNIQUE KNOWLEDGE FROM THE NETHERLANDS

INTRON will now make its expertise available world-wide within SGS. “We are now receiving enquiries from all kinds of countries,” says Rico van Selst, “asking whether we can help with the construction of a large bridge or tunnel, or with the waste materials that are left behind. The problems are the same everywhere. It isn’t our ambition to get so big that we have to manage teams all over the world. Local SGS branches remain the customers as much as possible. However, if they need unique, specialised knowledge, they can call us in.

PROACTIVE AND INTERNATIONAL

The new role presents a challenge for INTRON, especially at an organisational level. Extra people are needed, employees who like travelling all over the world to support complex building projects or requests. INTRON also has to get the necessary quality accreditations for inspections abroad, and has to increase knowledge of local standards. INTRON will also take the initiative more often to say: we can do this, we can help you there. Rico van Selst: “We did just that at a meeting for managers from Industrial Services, the business line we belong to. The proactive attitude immediately delivered an initial order.”

ADVICE BASED ON THE STATE OF THE ART

The market in which INTRON operates is becoming larger. Our current customers can also profit from that. Rico van Selst explains why: “As a knowledge centre, we are involved in and receive information on projects throughout the world. We are up to speed on all the latest developments and opinions. This is knowledge we use to find solutions for our customers, whether it’s a new concrete innovate design or a durability prediction.”

INTRON SUPPORTS QATALUM PLANT HANDOVER IN QATAR

In Qatar, Mesaieed, the world's second largest aluminium plant is currently being taken into operation. The first production runs have been completed and a number of parts of the plant have been handed over to the customer. In the first phase, the plant will produce 585,000 tonnes of top-grade aluminium per year.

The plant was built by SNC Lavalin. CCC was brought in as a subcontractor for the concrete work. The clients for the plant are Qatar Petroleum and the Norwegian company Hydro. At the handover of the smelters, there was a discussion about the quality of the floors and the consequences in the areas of constructive safety, durability and maintenance. INTRON was asked as an independent third party for its opinion in the matter. Thanks to the reputation of our parent company SGS, INTRON was awarded the job. INTRON's clients are therefore both SNC Lavalin and CCC. The smelter is that part of the plant where the aluminium is melted.

To give an idea of the extent of the plant: the two smelter buildings are 1,200 metres long. Two sections of floor were inspected in each smelter building. This represented a total floor length of 4.8 km.

We carried out the task in two phases. First there was a quick inspection of the extent and type of problem. Then came a second inspection to establish in detail the cause of the problems and to formulate solutions. Two further points for discussion arose during the first visit: a reinforced concrete pathway with large cracks and cracks in the walls of a channel, the so-called aeration channel. The cause of the cracks in the pathway was established on site and this was attended to during the first visit. An additional order was issued to establish the cause and consequences for the channel.

During the second, six-day visit, we investigated the smelters and the aeration channel. Among other things, this investigation involved inspecting the 4.8 km long floors of the smelter areas, inspecting the aeration channel, taking samples and reviewing documents. We are currently analysing the samples at our lab in Sittard. For this, we use techniques such as polarisation fluorescence microscopy, macroscopic fluorescence and chloride detection.

CCC is the no. 10 contractor in the world. INTRON has in the past worked closely with CCC on the King Fahd Causeway between Dubai and Bahrain and recently on the Qatar Bahrain Causeway.

AT THE BASIS OF HYDRAULIC ENGINEERING

MORE INFORMATION: HUUB CREUWELS HUUB.CREUWELS@SGS.COM

Hydraulic engineering is an everyday event in a waterlogged country like ours. It involves strengthening coastal and river structures such as dikes, river beds, groynes and breakwaters, as well as the protection of new land such as Maasvlakte 2, the port of Rotterdam expansion. INTRON is increasingly occupied with the testing and certification of quarries and rock used in hydraulic engineering. After all, water blocks must meet stringent requirements to keep the water under control..

CERTIFICATION OF FOREIGN QUARRIES

Water blocks must first have sufficient mass to withstand the power of the water. "Natural rock such as basalt and hard limestone are suitable," says INTRON consultant Huub Creuwels. "Phosphorous slag, steel slag and mine stone are also good. Some 95% of the natural rock we use in the Netherlands for hydraulic engineering comes from quarries abroad, including Belgium, Germany and Norway. INTRON is receiving increasing numbers of requests to certify these quarries so the producers can supply their rock to hydraulic engineering projects in the Netherlands."

THE GRADING MAKES THE DIKE

INTRON uses the quality system specified in assessment guideline BRL 9312 for certification. Huub Creuwels: "The certified quarries must themselves continuously demonstrate that their material complies. We take random samples at the quarry and test them for important properties such as density, break resistance and size distribution during grading. In addition, we test the rock in our laboratory for its environmental-hygiene properties, as required by the Soil Quality Decree, such as possible leaching and organic impurities. Different grades are prescribed for different hydraulic engineering constructions. The accurate grading of large and small rocks ensures that a revetment cannot move even under considerable water pressure. This inspection is carried out at the quarry itself and upon delivery to the plant by our sampler Roelof Braad. A tough job. Sometimes a good 1,000 kg of sample material pass through his hands in order for him to determine whether a quarry has supplied the correct grade.

INDEPENDENT OPINION

Huub Creuwels believes that a thorough visual assessment of the quarries is important. "If a producing area reaches a new layer, the quality of the material supplied can change. I'm currently working on just such a project. One of our client's customers questioned the quality of the rock supplied because there were more crystals present than usual. These crystals could result in a lower resistance to breaking. We were able to allay his doubts after strength tests on cylinders of different rock. The material from the new layer scored in the same quality class as material supplied in the past. It happens often that we're called in like this: we can determine the quality of the rock as an independent party."

INTRON SPOTLIGHT

PETER KOSTERMAN: “I STARTED WITH CERTIFICATION AT ENTRY-LEVEL AND HAVE GROWN ALONG WITH ALL DEVELOPMENTS”

MORE INFORMATION: PETER KOSTERMAN PETER.KOSTERMAN@SGS.COM

YOUR RELATIONSHIP WITH INTRON COULD BE CALLED SPECIAL.
“We don’t seem to be able to live without each other. I started with INTRON for the first time in 1993. In between, I’ve worked at other companies twice, for a total of four years. These included BK Engineers, where I also did a lot of certification work for INTRON. I could simply continue doing that work when I rejoined what was then BDA-INTRON in 1999. In 2007 - after a short period with an inspection bureau - I started for the third time at INTRON: as a senior account manager in Certification. I still get a lot of enjoyment out of the job. INTRON is sound, solid and serious company where you are given a lot of space and opportunities to try new things.”

WAS INTRON ALREADY INVOLVED IN CERTIFICATION, YOUR CURRENT WORK AREA, IN 1993?
“It certainly was. The first steps were taken in the early 1990s. I started in Houten, under departmental manager Dick Eerland. We worked on quality assurance for the construction and demolition waste sector. The Association for Recycling Construction and Demolition Waste (BRBS) was a major customer then. Eerland started working for himself about a year after I started at INTRON. I went with him (my first departure from INTRON) and continued working for sorting companies and rubble crushers. This later progressed to land fills demolitian constructors and asbestos removal constructors. The members of the BRBS got to know about certification surveys through the Korrelmix® quality guarantee foundation. We had a lot of work on process audits, sampling and setting up quality systems based on the regulations. These were the industry’s first steps towards certification. This same period saw the STEK decree and regulations for asbestos removal and concrete repair. It was with these that INTRON began work as a certification organisation.”

A GOOD TIME TO START?
“Definitely. Certification was still in its early days. The fact that I came from a different sector - precision engineering - was no problem. It was new for everyone. We were very busy working with the industry on its development. The rules for CDRU aggregates called for demonstrable process control and concentrated solely on the civil-engineering properties of the aggregates. There soon came a need for environmental-requirements for the use of these materials. IPO guidelines and the Building Materials Decree made an appearance. At that time, I was also working on the introduction of a paragraph on occupational health and safety (ARBO). The whole development of quality requirements was wonderful. I grew with it and over the years have built on my knowledge of certification and procedures. Now we still have customers from that period on our books.”

WHO ARE YOUR CUSTOMERS AND WHAT CAN YOU DO FOR THEM?
“At INTRON Certification, I’m responsible for the areas of asbestos and demolition, installation technology (STEK/F gases and PED), and for process certification in sports buildings. Customers from these sectors come to me with all kinds of technical questions. Thanks to my detailed knowledge, I’ve become a walking encyclopaedia for them. I think it’s great that I can make a constructive contribution to improving processes and can lead the way to quality assurance and/or certification. The customer is definitely number one with me. It is important to be accessible, and responsible for all answers, to have good reports, and well-informed inspectors and auditors. I have regular contact with other certification organisations and market participants to discuss the operation of the certification surveys we use. There’s also always something new. If a new industry comes knocking with an interest in certification, I sit around the table with them to see if we can develop a suitable system - one with added value: certification as a means and not an end.”

SGS ALSO WORKS A LOT IN THE AREA OF CERTIFICATION. DO YOU COLLABORATE?
“That’s still growing, but I can cite one example where INTRON and SGS complement each other: the European Pressure Equipment Directive (PED). INTRON is a ‘notified body’ and a designated inspection organisation (AKI) in that area. We exploited that to offer good service to our customers in the cooling/refrigeration industry. We’ve been carrying out STEK inspections for them for years (now combined with F-gas certification). Freezing systems and air conditioners also contain pressure vessels that need CE marks based on the PED regulations. Now that INTRON and SGS are one company, our colleagues from SGS can also use our experience. That has advantages for both parties. For us it can mean that we have more inspectors available and that we can enter SGS markets that are new for us. These include heavy industry where SGS has traditionally been more active than INTRON. Yes, it’s enough to start with and keep going. I’d also like, for example, to work on plans for remote auditing using web applications. I just need to find the time.”

MASTHEAD

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info@intron.nl www.intron.nl

Dr. Nolenslaan 126
6136 GV Sittard
POB 5187 6130 PD Sittard
T +3146 420 42 04
F +3146 452 90 60

Venusstraat 2
4105 JH Culemborg
POB 267 4100 AG Culemborg
T +31345 58 51 70
F +31345 58 51 71

FINAL EDITING Ulbert Hofstra en Gert van der Wegen
EDITORS Martine Boutz (Piek tekst & PR), Saskia Kerckhoffs, Suzanne Sideris
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PHOTOGRAPHS Bert Creemers

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INTRON INTRODUCES

HARRIE JANSSEN STARTED WORK AT INTRON ON 4 OCTOBER 2010 as a Senior Project Engineer Consultancy at the office in Sittard. He is an HTS graduate in construction and mechanical engineering. After graduation, he worked at HBG and received training in all disciplines within the group, so he has a lot of experience.

Harrie has experience in various phases of construction, from preparation to site management, and has worked in road construction, hydraulic engineering, non-residential construction and residential buildings. This has included projects that meet the requirements of sustainable building, such as the use of heat pumps with sensors and concrete core activation for heating and cooling. Examples are ski slopes which use waste heat as a source for heating and cooling, for the air-conditioning for the hotel.

At INTRON, he will focus on further development in the area of management, building supervision, risk management, failure cost management and sustainable construction. The aim is to become involved early in future projects. Harry himself believes that a change in the way of thinking is needed. INTRON has for years invested in knowledge and experience, and this knowledge will be extended to existing and future clients.

ON 1 SEPTEMBER 2010, ED VAN DEIJZEN JOINED INTRON Certification as a senior inspector. He will work in the first instance in the soil group for BRL SIKB protocols 1000, 2000, 6000 and 7000. Aside from that, he will also work in the construction materials group. Ed knows the work he will inspect from a practical stance as well. He worked for 15 years at a sand and gravel company in Limburg, most recently as a dredger foreman on a suction dredger. After that, he spent a few years on a sampling contractor, initially in the implementation of various automated and manual drilling techniques. He carried out this environmental drilling, sometimes to depths of 127 metres, all throughout Europe. He has worked in Spain, Portugal and Romania, and has also been active in the co-ordination and planning of the field work. Ed also spent some years with a large environmental consultancy. There, he worked as a soil consultant and in soil decontamination, including as a QA officer for contractors. At INTRON Certification, he will be an expert in this world from a different perspective.

ON 1 OCTOBER 2010, CORIANNE VERKAIK JOINED INTRON as a consultant at the Culemborg site. Corianne Verkaik trained in architecture in Utrecht, and in 2010 graduated in the field of energy-neutral building. She gained experience in the building industry at an independent glass consultancy and with a supplier of building products. At this company, she was responsible for strength and cost calculations, and was involved in research into problems of product applications. At INTRON, Corianne will first work on damage inspections and providing consultancy on energy-neutral construction. She will also train in building physics to expand her knowledge base.

ON 1 SEPTEMBER 2010, CHRISTIAAN BOUWMAN JOINED INTRON Certification in Culemborg. After his MBO process environmental training at the Dr Groen College in Almelo, he began as a lab technician/inspector in the area of asbestos restring and advanced to become a quality officer and junior ISO 9001 advisor at a consultancy for asbestos release and material analysis, asbestos inventarisation, soil analysis and quality system advice. He then worked as a KAM co-ordinator for a large contractor in the field of GWW, demolition, sand recovery, soil decontamination, asbestos removal and recycling. After that, he found his challenge as a KAM project manager providing advice for various BRLs, ISOs and VCA surveys, and was a head auditor for asbestos surveys (sub-contractor) at a certification installation. He was also a KAM and technical manager within the holding for the accredited lab, and a DTA, DAV and VCA examiner. Christiaan then seized the opportunity to start as a project manager/quality co-ordinator at a consultancycompany. His responsibilities included the co-ordination of asbestos inventories, supervision of procurement and implementation, preparation of specifications, policy planning and delivery to meet the needs and protect clients.

The professionalism and diversity of the INTRON/SGS organisation and that within a flat structure are what attracts Christiaan in INTRON. In future, the audit remit will extend to building materials, the environment, safety and anything else that comes his way.

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WHEN YOU NEED TO BE SURE