Passion



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Passion 01

Proud of your trust

Clearly our slogan 'Passionate about steel' is the perfect way to express what makes our hearts, minds and hands work, each and every day. Yet a simple passion for steel is not enough. You know better than anyone that only a mutual relationship will survive. Smulders is proud of its team of loyal, hard-working employees, who constantly need to keep up with developments in the market and technology, and above all with the wishes of our clients, with you. At the same time you continue to demonstrate your trust in our expertise and flexibility. We'd not be passionate if it weren't for the confidence you show in our expertise and our repeated and punctual supply of the quality you require. It's thanks to you that we are a strong company able to meet market needs both today and in the future, in terms of capacity and know-how.

Twice a year, in this new magazine, we aim to give you a glimpse of our recent projects in the area of Offshore Wind, Offshore Oil & Gas, and Civil & Industry. This year Smulders signed their 40th Offshore Wind contract. We have already successfully manufactured 14 substations, 48 jackets and around 1,000 transition pieces, while 6 substations and over 200 transition pieces are still on order. With our 150 transition pieces and 2 jackets & 2 topsides we also made a significant contribution to the Gemini project, one of the world's largest offshore wind energy projects. We also anticipate a well-filled order book over the coming years. We increasingly work with partners who have made their name in large-scale wind turbine projects, mainly because of our proven quality, our approach to safety and our reliability in delivery.

Globally the Oil & Gas market has had a challenging year due to the low oil prices. Many projects are on hold and clearly this affects us too. Even so, this year we have supplied innovative products to a number of large projects, such as Stinger and PLEM. Despite the last crisis in the building industry Smulders has been involved with some spectacular steel construction, in projects such as the award-winning Central Station in Rotterdam and the departure station of the Erasmus line in The Hague. Projects planned in the coming years include the production of a steel façade for the impressive apartment complex in London's former Battersea Power Station. Once again we'll be working with the American architect Frank Gehry, who was also our partner during the creation of the Louis Vuitton Foundation in Paris. Needless to say this makes us extremely proud.

All in all we have considerable faith in the future. However, once again, this is not down to us alone. If you give us the opportunity, we will make sure to meet your expectations in the coming year. Or rather, do what we normally do: namely try and beat your expectations.

It just remains for me to wish you, your loved ones and your company all the very best. Here's to a fantastic year in 2016!

Raf lemants

Managing Director Smulders

Eiffage creates Infrastructures division

In September Eiffage announced the restructure of its divisions: Construction, Infrastructures, Energy and Concessions. The new 'Infrastructures' division, to which Smulders belongs, employs over 23,000 staff and includes Eiffage Route, Eiffage Génie Civil and Eiffage Métal.



lemants wins an award

Another prize has been won by Rotterdam's Central Station, complete with its roof construction made by lemants! In September 2015 we received the 'Award of Merit' (European Steel Design Awards), issued by the European Convention for Constructional Steelwork (ECCS). It was the SNS (Association of Dutch Steel Construction) who nominated us for this international prize. The European Steel Design Awards are issued every 2 years to encourage the creative and best use of steel in architecture and construction. That's why the awards are given jointly to owners, architects, engineers and steel construction companies for a single national project in each country, in recognition of their work.

websites

Smulders' responsive new websites have been online since November. Be sure to take a look on www.smulders.com!

Gemini Wind Farm

Theme: Gemini Wind Farm

Flexible relationship Strong foundation

In the period between September 2013 and November 2015 Smulders manufactured 150 transition pieces (TPs) and 2 topsides with the appropriate jackets for Van Oord, for use in the Gemini Wind Farm, which lies 85 km off the north coast of the Netherlands. This involved two very different products but with plenty of challenges to be able to demonstrate our company as being a leader in the offshore wind industry.



Steel savings on jackets

the next.

In this project Smulders has totally optimised 2 jackets in terms of material use and welding volumes. During design sessions prior to the task, models were developed in which the jackets required fewer supports but achieved equivalent levels of sturdiness. This efficient construction saves 500 tonnes of steel, not to mention considerable cost. It is an example of optimised productive collaboration between experts at Van Oord and Smulders. We have also carried out considerable

Between the two there is considerable evolution in operations from one day to

research concerning the growth of mussels etc. on the jackets. This helped us to optimise a design to slow down the deterioration process, once again saving costs.

Despite our considerable experience in building topsides, in the Gemini project we redeveloped many of our previous components from scratch, benefiting from valuable input from production, purchasing and engineering ('lessons learned'). Time after time, having the drive to rethink how improvements can still be made. This is the solid foundation at Smulders, keeping us flexible and ahead of the game.

Added value

Van Oord placed their trust in Smulders to carry out this mighty project. The TPs are standard items, whereas the jackets and topsides are both one-offs. Our company has the appropriate structure and facilities to cope with both types of products and produce them simultaneously.

We also offer a number of advantages giving the customer added value in other areas. During the engineering phase of the projects we already thought about how to improve the design, to benefit both the end user and the manufacturing process.

The Gemini Wind Farm is located guite a distance from the coast, making access rather difficult and expensive. To allow the constructions to resist unfavourable offshore conditions (sea water, battering by waves, wind, etc.) for a minimum of 25 years, Smulders is to make quality an absolute priority. We are already taking this into consideration while optimising

the design. This is only strengthened by our own strong quality system plus the conscious decision to choose trusted partners and suppliers who are able at least to match the same high quality levels. These also all have a proven track-record in the offshore business.

Project teams are assembled at the start from a wide range of professional profiles: including those in project management, technical experts and certified quality auditors plus highly experienced and qualified production staff. Their joint task consists not only of creating a premium quality product, but also of achieving goals within the identified budget and timescale. The timing of an offshore installation is always tight, as action can only be taken within a certain time-frame.

Flexible progress

Regardless of the tight timing and quality demands, Smulders still endeavours

to offer clients the maximum possible flexibility. Take for example starting engineering work before all financial aspects are completed, offering longterm storage of no less than 105 TPs and being involved in the consideration of amendments which the (end) client wants implemented rapidly.

Van Oord originally asked up to supply 150 identical TPs. However it soon became clear that this was not appropriate, as some components to be integrated were specific to the base. Almost half of the TPs were to be equipped with navigational components, radar reflectors, foghorns and lanterns, ensuring visibility for miles. When production was already underway the end client also asked us to provide an additional 14 bases and cable tubing to allow the later addition of a 4G communication system installation. By making the engineering team available right away and changing the production schedule at the last minute we managed

to provide a solution which could be implemented in the nick of time. Also, we depended on the entire supply-chain at Smulders to take the necessary action to allow all the components to be assembled

Partly thanks to the large storage facilities available, we were successful in handling the adapted order of installation in a flexible manner. With location-specific TPs, fixed offshore installation permits and specific time-frames the customer needs to be able to get hold of the right TP for the right location in the wind farm at just the right moment. We were able to manage last-minute changes to the delivery schedule without adversely affecting deliveries of the TPs.

Topsides

The production of the 2 topsides with transformers, equipment, accommodation, etc. was also a huge task, given that Smulders had full responsibility for the

design and construction. The exterior and the topside segmentation were optimised in collaboration with the customer. Clearly many design sessions are necessary for everything to be properly agreed between the client, JV partners Cofely Fabricom and CG. The construction period of 1 year that was allocated in the end was short in comparison.

Since starting in June 2013 more and more overlaps have developed during the design process between our long-standing expertise and the client's requirements. A topside requires efficiency both in its construction and in its final consumption and treatment of energy. Safety (and especially fire safety) also plays a key role. The required standards are forever changing and that makes both good collaboration with the client and mutual trust of the utmost importance. Smulders is good at handling fluctuating conditions. We consider the contract as the starting point, but the end result as the goal.



Van Oord is currently working on the two wind farms within the Gemini project to the north of Eemshaven. Its full capacity of 600 MegaWatts makes this one of the largest wind farms in the world.

Project Manager Didi te Gussinklo Ohmann talks about the importance of optimal collaboration within the supply chain, where Smulders plays a kev role.





Challenging project

"The Gemini project is a huge challenge for Van Oord. Even with all our experience in installing wind farms, each project is different. This is due to offshore conditions, but most of all to the rapid evolution in technology. The challenge lies mainly in innovation. How can we provide even better work at an even lower cost, that's what it boils down to. These types of projects are always under pressure from every angle to save costs. In addition Gemini is clearly a huge project in terms of scale and production. Van Oord is charged with installing the 150 wind turbines and the 2 Offshore High Voltage Stations (OHVS). The substations convert the 33 kV into 220 kV. Back on the mainland this is converted once again, this time to 380 kV. We are also laying the field cables and the AC export cable towards the shore, which measures over 100 km (267 mm diameter). We are laying an onshore cable under the Eemshaven up to the mainland station, which we are also building. All in all it's a very broad assignment.

I have also been involved in the Gemini project for nearly 5 years, in my role as Project Manager. In that period there have been many changes to the design with all kinds of technological developments, cost reduction and learnings from other offshore wind projects. Staying alert to improvement is one element making this project so exciting. This process of continuous innovation also makes you an interesting contractor on the market for future projects. Really dynamic."

Added value

"We have been working on the Gemini project with our partner Smulders both pragmatically and constructively ever since 2013. We chose them for their keen price and our previous good experiences in working together. They supply good quality, think proactively and offer the necessary expertise. This makes them reliable, a key factor when it comes to getting the project done. As in all good relationships this type of long-term, broad assignment also requires a certain mutual respect. The essence lies in understanding each other properly, trust and clear, rapid communication. Then problems can generally be resolved before they even become problems.

During our discussions on the contract we clearly built in as much flexibility as we could, bearing in mind variables such as steel quantities, but it's impossible to put everything down in black and white. As the project progressed we did request certain

changes, aimed at optimising the final design. Of course these changes then need to be managed by suppliers in terms of both planning and cost. When you have a good relationship it's much easier to change things than when you just have a formal business relationship. In those cases it's the contract that rules rather than an intention for all parties to do their very best. At Gemini this has always been a priority for both Van Oord and Smulders, even if you don't always share the same opinion. Then it's a real win-win. I believe that 'mutual trust' is of crucial importance when you're dealing with such a long production period. That trust is not only a personal matter, but also based on the expectation that your partner - like yourself- will do everything that is required to get the most out of the planning and quality. Don't forget that a good end result depends on all those concerned. All those doing business are investing in the future. As we all know, you achieve more with success than with failure."

Trusted partner

"At Gemini the tight timing was of utmost importance, something that Smulders is good at managing. Even the smallest delay would have had a huge impact on cost. Furthermore, teamwork is of the

essence. Even though Van Oord respects a strict client-contractor relationship with suppliers, on the shop floor it's often a case of all hands on deck. When making technical changes you need to know what each person has to offer, their expertise. You can then develop synergies and a better product for the customer. If everyone keeps making demands or thinks they know it all then the partnership becomes awkward or just doesn't work. Naturally we didn't always see eye to eye with the team at Smulders, but that's not an issue. What's important is how you deal with that. I also believe that Van Oord is a partner the suppliers can trust, one that inspires confidence. Once again, you need to have a reciprocal relationship, and certainly in the case of a mega project like Gemini. Such things make it nice working with Smulders, because in each project we benefit from previous shared experiences, including technical ones. Each time you can gain from such expertise and use it in new situations. It's not a question of sitting back, but thinking ahead."

At the Veja Mate Offshore Wind Farm (about 100 km off the German North Sea coast) lemants is working in a consortium with CG and Cofely Fabricom on the design, production, transport and installation of an HV offshore topside and jacket. The 67 wind turbines (6 MW) will produce electricity for more than 280,000 homes and lead to an annual reduction of CO2 emissions amounting to over 570,000 tonnes.

Manufacture of the steel construction began in May 2015 at lemants in Arendonk, at Willems in Balen and at Spomasz in Poland. Assembly of the 60 metres high jacket started last October at the site in Vlissingen. Shipment is planned in August 2016.

Client	Veja Mate Offshore Projects	
Weight	Topside Jacket Piles	1,150 T 1,500 T 1,000 T

Race Bank - Burbo Bank - Walney



In December 2014 lemants was awarded the largest contract in the offshore wind industry by the Danish company Dong Energy. In the next 2 years we will be making 5 topsides and jackets for various wind farms based in England. 2 topsides and 2 jackets are required for the **Race Bank Offshore Wind Farm.** Race Bank lies around 20 km off the North Norfolk coast and will have the capacity to supply 580 MW, enough for around 400,000 homes. Not only that, it will also reduce CO2 emissions by an annual rate of over 830,000 tonnes.

The **Burbo Bank Offshore Wind Farm** is located in Liverpool Bay on the west coast of England. In 2009 plans got started to expand the existing wind farm, with the addition of 90 km² to the west, which is to increase capacity by 250 MW. In February we began production of 1 topside and 1 jacket for this expansion project.

Walney is an offshore wind farm 14 km off the coast of Cumbria in the Irish sea. This wind farm consists of 51 turbines with a total capacity of 367 MW. That equates to the clean energy required to service around 250,000 British households. Iemants is making the 2 topsides and 2 jackets. Production is planned to start this year.

Dong Energy		
Topside	1,350 T	
Jacket RB 02	1,130 T	
Jacket RB 01	1,365 T	
Piles RB 02	520 T	
Piles RB 01	1,280 T	
Topside	1,090 T	
Jacket	923 T	
Piles	706 T	
Topside	1,260 T	
Jacket WOW 03	1,294 T	
Jacket WOW 04	1,479 T	
Piles WOW 03	911 T	
Piles WOW 04	704 T	
	Topside Jacket RB 02 Jacket RB 01 Piles RB 02 Piles RB 01 Topside Jacket Piles Topside Jacket WOW 03 Jacket WOW 04 Piles WOW 03	Topside 1,350 T Jacket RB 02 1,130 T Jacket RB 01 1,365 T Piles RB 02 520 T Piles RB 01 1,280 T Topside 1,090 T Jacket 923 T Piles 706 T Topside 1,260 T Jacket WOW 03 1,294 T Jacket WOW 04 1,479 T Piles WOW 03 911 T

Yes, we're proud on our achievements

Gode Wind



lemants manufactured 2 jackets and 2 topsides for Germany's largest offshore wind farm, Gode Wind 1 and 2 (97 wind turbines). The sail-away took place at the beginning of June in Vlissingen, after which they were ferried to their final destination in the German North Sea.

The construction of these 2 offshore platforms was completed on schedule. Cost savings were achieved by getting both topsides made by the same manufacturer and installing them in one go. This makes Gode Wind 1 and 2 a real role model for Dong Energy's Offshore wind farms in the future.

Rampion



Smulders will provide 116 Transition Pieces for the Rampion Offshore Wind Farm, an assignment from E.ON Climate & Renewables. Production of the TPs began in July and the first load out is to take place in December this year. SIF is the main contractor for primary steel.

The wind farm will be built 13 km off the coast of Sussex, England and will produce 400 MW.

Client	Dong Energy	
Weight	Topside (2x)	915 T
	Jacket (2x)	1,875 T
	Piles (2x)	880 T

Client	E.ON Climate & Renewables
Scope	116 Transition Pieces

Yamal LNG is a major project of a liquefied natural gas plant being built in in the Yamal Peninsula in Northern Russia. It is one of the largest industrial projects in Arctic area which involves the drilling of more than 200 wells, the construction of 3 LNG trains, a gas terminal and 16 icebreaker tankers. This LNG plant is expected to have a production capacity of around 16.5 million tons per year.

lemant's scope for this project includes the grillage and seafastening of about 80 modules and the dismantling, installation, renovation, fabrication and delivery of 5,000 tonnes of steel constructions.

Production will take place in our facilities in Arendonk and Balen; the installation takes place at the Port of Zeebrugge. To realize this project, lemants formed a Joint-Venture with ALE and ICO.

Client YAMGAZ	Joint-Venture composed of Technip (50%), Chiyoda (25%), and JGC (25%)
Weight	Modules 500 T – 9,000 T, Fabrication

PLEM





Willems has carried out a number of operations for the PLEM project. The structural steel tubes were cut (3D profiling) in Spomasz, the base frame and anti-snagging frame were assembled at Willems - Balen. All piping was made at the subcontractor Fabricom in Grimbergen. The final destination is Gabon.

Client	Van Oord België
Weight	75.5 T

Civil & Industry

Library De Krook in Gent (B)



Since March 2014 we have been actively involved in the construction of De Krook in Ghent. This includes a new city library, research centre for media and information, art and culture, and meeting places such as cafés, restaurants, parks and squares. Smulders is to produce and install the visible steel construction weighing no less than 2,000 tonnes, and complete with a transparent nanocoating. The whole building project should be completed by March 2016.

Client	De Waalse Krook cvba	
Contractor	Antwerpse Bouwwerken	
Architect	TV COUSSÉE & GORIS architecten / RCR Aranda Pigem Vilalta Arquitectes	
Weight	2,000 T	

HSE project



In the HSE project (concerning the new departure station of the Erasmusline in The Hague) we are building the steel metro viaduct as a subcontractor to BAM. This is a 2,600 tonne bridge measuring a total of 323 metres long and whose planned location lies between a station, railway track, motorway, housing estate and underground car park. The viaduct consists of 35 bridge components and 10 pillars, supporting a deck, whose width varies between 10 metres and 16 metres. Deck A contains 15 bridge components, which were assembled upon a temporary working platform, and then had to slide across the pillars to reach the pier-head (a distance of around 140 metres). This operation was carried out successfully in early August.

Client	City Den Haag and ProRail
Contractor	ВАМ
Architect	Zwarts & Jansma Architects
Weight	2,500 T
Length	323 m

Passion 01 Employee on site

Bram Van Gompel project engineer

The fact that people 'make drawings' in the drawing office of a large construction company will not surprise you. Even if this is done mainly digitally and in 3D. However, in reality this appears to be just one of the many activities to take place there. One employee from the drawing office at Willems in Balen is the project engineer Bram Van Gompel.



"Each project has its own project team. My role is to represent staff from our drawing office and to ensure that the input from both internal and external meetings reaches the draughtsmen. Since we work on a number of different substations at the same time each project has a 'chief draughtsman' who is responsible for that model. I am in charge of them and carry final responsibility.

Each week the product team have an internal meeting by video conference. Those to participate are the project managers, quality engineer, purchasing, production, auditing project engineer and me. Frequent discussions are absolutely essential when it comes to large and complex projects like the manufacture of substations, as not all elements are known up front. We need to change all kinds of things along the way and that

starts in the drawing room. That's where things are defined down to the last bolt. That's why I have lots of discussion with the draughtsmen. Actually, I'm the gobetween for the project teams and the draughtsmen.

I began as a draughtsman at Willems in 2011. That's an advantage in my opinion, as it means I know how the land lies. Over recent years I have mainly been involved in designing substations, including those for the Gemini Wind Farm. The challenge in substations like that is that you can draw the steel structure, but you only get the precise detail on the equipment and implementation late on in the process. This input is discussed in external meetings with Cofely Fabricom and the customer. It's because we are rarely able to work with standard data that my job is so varied

and challenging. Many of our products are custom-made. Willems does try to standardise as much as possible, to avoid having to keep reinventing the wheel. That's why we're so creative. For example we have our own design for a standard cable duct grid, as we know that this can come in very handy later in the process. In some projects the design has already been decided, as it has already been prepared by the customer. But in lots of projects we do the design and then we can utilise our expertise and creativity to the full. Always in close collaboration with the clients of course.

In the drawing office we do far more than just designs. We also give input regarding the purchase of steel components that we don't make ourselves, as well as for plans concerning production, assembly

and transportation. We also prepare the painting plan in which we identify the parts which are to be protected on products which are to be painted. All that makes for a very varied job, which is what I really love. Our production department depends entirely on the planning issued by the drawing office. We need to be careful, because otherwise they can't meet their planning. That requires constant collaboration and communication. No product ever comes to fruition without teamwork.

That's also really important within the drawing office. One initiative I appreciate is that we draughtsmen always go and see the finished product. Don't forget that for months draughtsmen mainly get to see an enormous substation on a computer screen. Experiencing the impressive final structure in real life can therefore teach

you plenty. Then it's easier to understand just why you made certain choices from behind your computer. In addition you get to feel proud of your own work. When you are one link in a whole chain from design to delivery you need to understand all parts of the process. That means you need to get away from your desk in the drawing office regularly.

That's the reason behind our company organising the so-called 'lessons-learned sessions' following completion of each project. This is where we look critically at what did and didn't go well and the learnings for the next project. Members of our quality department who lead the projects also come along with data they have analysed from previous projects. There's always lots to be learned from these meetings.

My day is never boring. One day I'm in my office, another I'm on site. I see all sides of a project and love to explain to the draughtsmen the reasons behind certain decisions. I am good at putting problems into perspective and coming up with possible solutions together with my colleagues. Beyond that, one day you're working on a substation and the next day you're designing a large bridge or petrochemical installation. It always gives you a sense of satisfaction when you see the finished product. You realise how much work is involved, who did what and how you were able to contribute."

Men of stel

Form left to right

- 1. The highest standards apply
- 2. Accurate welding
- 3. Production of boatlandings
- 4. More than 1,000 platforms have been produced at Spomasz
- 5. Overview production hall
- 6. Production of a subsea construction



Spomasz, the ideal facility

In Spomasz 160 - 200 tonnes of steel are processed every week. Production halls are 11 metres high, cover an area of 13,500 $\rm m^2$, and are equipped with overhead cranes with a lifting capacity of maximum 12.5 tonnes. In order to meet clients' requirements, our production plant is equipped with a CNC line for plasma cutting profiles and tubes in 3D and lines for welding plate girders.

The wide technical expertise offered by our personnel ensures that our constructions meet even the strictest of standards and client expectations.

Debby has been working for lemants for a year and a half. Having just graduated as a construction and welding engineer she was immediately thrown into the deep-end as assistant project manager in a large project, the so-called Haags Startstation Erasmuslijn (Departure station of the Erasmus line) in The Hague (NL).



"Where I'm from in Flanders they call that, 'sink or swim'. I had to work really hard over the first few months to keep my head above water. People did not always understand me and vice versa. Together with the project manager we divided the tasks, meaning I needed to get down to work independently right from the start and was in charge of part of the project. lemants is building a 320 meter-long steel tram viaduct towards the final station. That's in an area which is already full of buildings and houses. A busy part of The Hague with little room for any building activity. I am not only closely involved with the planning and the quality of our work, but also with the many safety aspects and contact with local residents. This is my dream job, as I am dealing with both the construction and welding aspects. That's why civil projects appeal to me so much."

It's tough for any young employee at the start, but Debby really hardly had a chance to settle quietly into the job. "The pressure was on right from the word go. That was stressful but you get used to it. The great thing is that I can ask if ever something is not clear. My colleagues were a great help. These days I don't need to ask as much and I'm getting better at 'swimming'. That's necessary when you are in charge and the main contact for lots of people."

Being both young and female Debby is an exception on two accounts in the overwhelmingly male world of building.

"I don't have the impression that people treat me differently because I'm female. They do expect me to lack experience, but they take my role and my training seriously. So I can't get away with anything, because any errors or delays are simply out of the question. Staff just expect me to solve the problems and keep to the tight schedule. Being young or female makes no difference when it comes to doing a good job. And naturally I share that view. At the beginning I did once turn up too late with something. It was immediately made clear that this was just not acceptable. Ever since then I've been well on schedule and that is really appreciated. That's how you quickly learn what it's really all about."

In the week Debby stays in The Hague and at the weekend she returns to her home in Lier near Antwerp. "When I get back to the hotel after a busy day at work I find it hard to switch off straight away. You sometimes continue discussions with colleagues at dinner and you then tend to continue thinking things through. I only really relax when I get home."



Impressive safety scores

Over the last 8 years scores for safety at all the Smulders' sites have just kept on improving. We are both delighted and grateful that the year 2015 (to date) can be marked as a particular success in the area of Health, Safety and Environment (HSE). Across all our sites, employing over 800 people, there has been 1 single victim of a serious accident, leading to temporary absence. We wish our colleague a full recovery. At all other sites the number of incidents leading to absence amounted to 0. That's a new record to which all our staff, and our customers' (justifiably) critical auditors have contributed. Let's keep up this positive trend next year!

New work outfit

At our sites in Arendonk, Balen and Hoboken staff in the assembly and transport departments will be wearing high visibility work outfits from 1 January. This will make them nice and visible to others at any time, be it night or day. Naturally the new clothes are also fire retardant and (in the case of assembly) splash resistant.

These outfits help to improve employee safety considerably in all kinds of work environments. Our site in Spomasz (Poland) also switched to better work gear a few months ago.

100% protection

Lots of smoke and dust is created when welding and grinding. We therefore need to do our very best to protect our employees. We regularly carry out 'body based' measurements at each site. These demonstrate that those not far from welding activity (such as clients, machine operators and managers) are able to move around safely without additional protection Of course, protection is always available for anyone who wants it. Increasing numbers of welders across our sites have perfectly fitting hoods with an additional fresh air supply. These offer 100% protection. Certain grinding hoods also have adequate filter systems. For all other applications it is a requirement to wear a P2-dust mask correctly. As far as everyone involved at Smulders is concerned: safety applies to everything and everyone!





is more than clear!

A Passionate and Sparkling New Year!