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innovative process technologies

PROVEN EXPERTISE



INVENTIVE SOLUTIONS

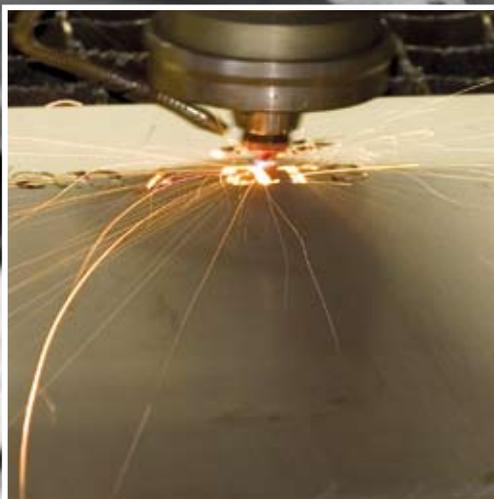
**VanAarsen**  
TYRE RECYCLING

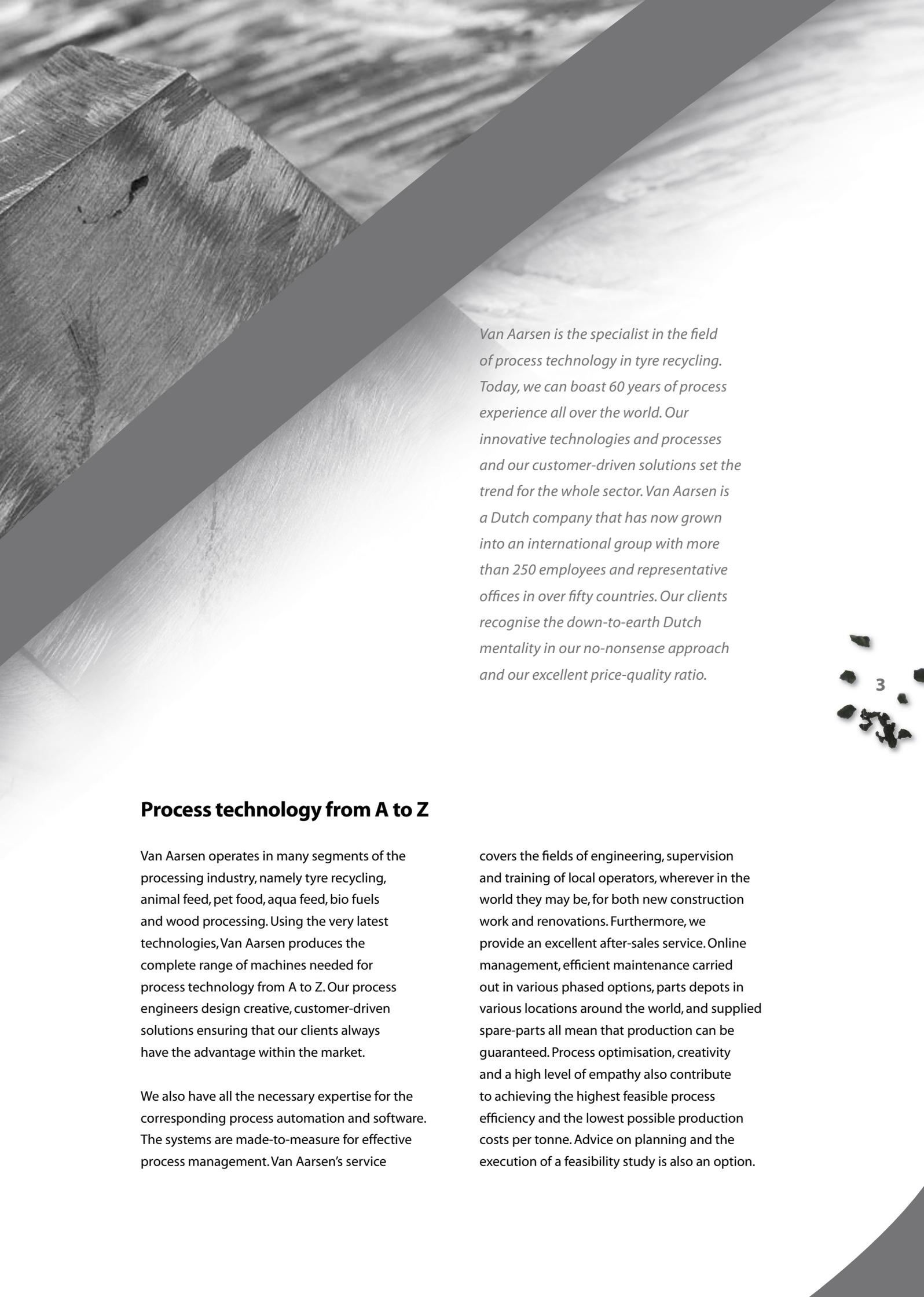
innovative process technologies





# Innovative, flexible process technology





*Van Aarsen is the specialist in the field of process technology in tyre recycling. Today, we can boast 60 years of process experience all over the world. Our innovative technologies and processes and our customer-driven solutions set the trend for the whole sector. Van Aarsen is a Dutch company that has now grown into an international group with more than 250 employees and representative offices in over fifty countries. Our clients recognise the down-to-earth Dutch mentality in our no-nonsense approach and our excellent price-quality ratio.*

## **Process technology from A to Z**

Van Aarsen operates in many segments of the processing industry, namely tyre recycling, animal feed, pet food, aqua feed, bio fuels and wood processing. Using the very latest technologies, Van Aarsen produces the complete range of machines needed for process technology from A to Z. Our process engineers design creative, customer-driven solutions ensuring that our clients always have the advantage within the market.

We also have all the necessary expertise for the corresponding process automation and software. The systems are made-to-measure for effective process management. Van Aarsen's service

covers the fields of engineering, supervision and training of local operators, wherever in the world they may be, for both new construction work and renovations. Furthermore, we provide an excellent after-sales service. Online management, efficient maintenance carried out in various phased options, parts depots in various locations around the world, and supplied spare-parts all mean that production can be guaranteed. Process optimisation, creativity and a high level of empathy also contribute to achieving the highest feasible process efficiency and the lowest possible production costs per tonne. Advice on planning and the execution of a feasibility study is also an option.

**Van Aarsen develops, designs and produces innovative machines, and has a flexible and creative approach to processes. Van Aarsen is a technical trend-setter thanks to extensive experience in the field, and their work complies with the strict European standards. Van Aarsen offers an extensive global service and an excellent price-quality ratio.**



# Many years of experience, worldwide expertise.

## **Knowledge Centre: inventive and innovative**

The focal point in both the hardware and the software lies in the highest possible level of technical quality, tailored to the demands of the market. The developers of our Research & Product Development department anticipate and readily respond to specific questions and applications. Van Aarsen therefore profiles itself as a Knowledge Centre, within which the interaction between the client and the supplier is used to develop optimum products and tailored solutions. Innovations are designed, tested and implemented right down to the smallest details.

We are constantly working on inventive improvements in order to make processes even more efficient and even cleaner, safer and more profitable. All of this takes place in line with the strict European directives.

## **Flexibility**

The dynamics of today's global market demand far-reaching flexibility. Van Aarsen is well known for its fast responses. Short lines of communication ensure that clients receive answers to their questions quickly.

We supply turnkey factories, complete processing lines and of course machines that can be fitted into existing processing lines, or additions to these lines. Moreover, Van Aarsen is the ideal partner for the renovation of processing lines or factories. Van Aarsen elements fit together seamlessly, but can also be very easily applied in projects run in collaboration with other suppliers or partners.



We always work on the basis of the principle of the right machine for the right product in the right place. In this regard, we take into account the local conditions, anticipating the local market situation and thinking in terms of the bigger picture. Our operationally-efficient solutions ensure more variation options and therefore also more successful business dealings.



Van Aarsen has been active in tyre recycling for decades. In contrast with most suppliers, our machines are developed purely for the recycling of tyres. This results in the best price-quality ratio, a high level of business certainty and low operational costs. In principle, thanks to Van Aarsen's expertise, a marketable end product can be produced in three steps; shredding, grinding and granulating. Our main grinder is unique in that shreds can be transformed into granulates in a single step, and more than 95% of the steel can be separated at the same time, resulting in efficiency and minimal wear and tear in subsequent stages of processing.

Complete cleaning is also integrated into this. In combination with the high standards in the fields of safety and the environment, this makes Van Aarsen the best choice in tyre recycling. Van Aarsen tyre processing equipment that has been operational for more than 20 years highlights our reputation for thoroughness, reliability and cost-effectiveness.



**The right machine  
in the right place**



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## Process engineering in top form

We continually receive important feedback thanks to years of intensive contact with process specialists from all over the world. The setting up of a profitable process configuration requires a combination of know-how in engineering and a great deal of expertise in every phase of the process. This means that Van Aarsen has the best solution for every element of the process.

### Shredding

Whole car and truck tyres, including the bead, are shredded down to an appropriate size.

### Main grinding section

The tyre shreds are ground between serrated rotor and stator blades. More than 95% of the steel wire present in the shreds is removed in a single step. This unique machine converts shreds into rubber granulate and powder, economically and without creating environmental hazards.

### Granulation

Coarse rubber granulate is fed into the granulator. Wear and tear to the granulator's blades and screens is kept to a minimum, as more than 95% of the steel wire in the shreds has already been removed at an earlier stage.

### Secondary grinding

The secondary grinding section consists of one or more Rotor Mill systems. The mill operates at a high speed in order to effectively reduce the size of the flexible rubber particles. Besides the ease of operation, another of the benefits of the Rotor Mill is that the liberated fibres coagulate during the process due to the high speed. Capacity and output can be adjusted to suit the demands of the system as a whole.



The Van Aarsen machines are produced in the Netherlands, guaranteeing reliability and good quality. We couple our combined knowledge and proven expertise with an innovative manner of thinking and working. In this regard, we keep the entire technical process in mind, which can then be adapted to every client-specific situation. This is Van Aarsen's main strength.



# Perfect price-quality ratio

## **Sieving and cleaning**

Throughout the process, the rubber particles are sieved and graded into different sizes, ready for the next production operation or for final storage in silos.

Contaminants such as fibre cord, dust, steel, non-ferrous particles and dirt that are released during the various grinding and granulating processes are separated out using magnets and airflow devices. This ensures a high-quality end product.

## **Transport – from a to b**

Van Aarsen has economical and efficient solutions for low-contamination horizontal or vertical transportation of semi-finished or finished products within the factory.

## **Bulk loading – flexibility and loading capacity**

The basis for this is the specific client and market situation, from simple loading to complex robotic loading processes.

## **Bagging and palleting – good packaging is a real art**

The end products may be perfect, but their packaging also needs to satisfy a large number of requirements. We offer the right solution based on our expertise.

## **Electronics and automation - state-of-the-art process automation**

The Van Aarsen systems are user-friendly, open, flexible and intelligent. They feature the option of updating or expansion through the addition of modules in the fields of contamination, tracking and tracing, etc. This makes us the “number one” in process automation.

## **Engineering – tailoring and vision**

We deploy all of our experience in order to achieve the greatest efficiency while remaining flexible. The result is always a customer-driven process in which we invest all our creativity in devising the best solution for now and for the future.

## **Production, installation, project supervision – our responsibility**

Besides design and development, Van Aarsen also takes responsibility for production, installation and supervision. We thus manage all phases of the entire project.

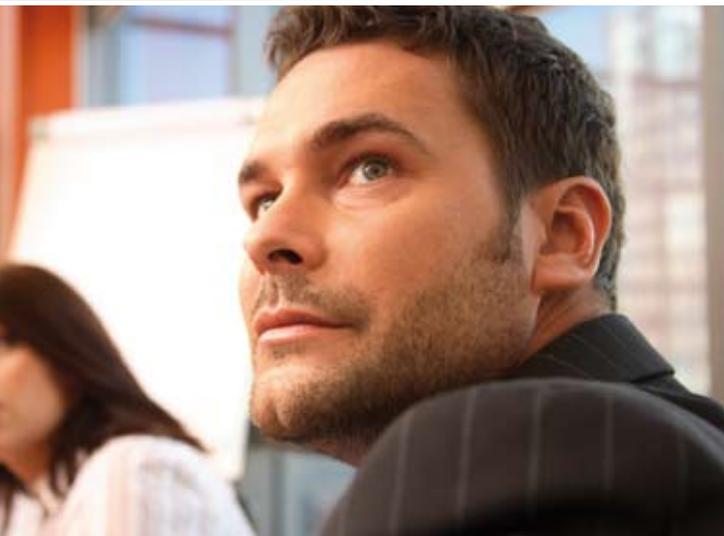
## **Maintenance - service is our strength**

Regular maintenance, a reliable service and the speedy availability of spare parts ensure that down-time is kept to a minimum.



# High-quality solutions





### **Animal Feed**

Van Aarsen has become a worldwide “household name” in feed technology, both for commercial feed producers and for vertically-integrated businesses. Quality is of the utmost importance for both segments, and innovations in feed production are therefore of great interest. Thanks to their extensive experience, our engineers and technicians are always able to offer suitable solutions.

### **Pet food**

Van Aarsen equipment has been successfully deployed in the pet food industry for decades. Well-known multinationals and many private-label producers rely on Van Aarsen equipment for their dosing, grinding and blending processes. Van Aarsen is the obvious partner for the construction or optimisation of your pet food system.

### **Aqua Feed**

Developments in the field of aqua feed are fast-moving. Van Aarsen has been active in this field since the very beginning. The name Van Aarsen enjoys a very good reputation among aqua feed producers thanks to the innovative character of the machines. Our flexible mentality enables us to supply and supervise every aqua feed production process.

### **Wood processing**

Such a specific product like wood requires an innovative approach. Van Aarsen’s machines have been specially developed for processing wood chips, shavings and sawdust, transforming them into wood pellets in a process of drying, grinding and pelleting. This pellet production is perfectly tailored to the end use: the generation of sustainable energy in a CO<sub>2</sub>-neutral manner.

