#### VAN DER ENDE GROEP IMPROVING YOUR BUSINESS



## ADVICE DESIGN SALES INSTALLATION MAINTENANCE

Van der Ende Groep is an inventor, manufacturer and supplier of technical products in the field of water technology, air treatment and industrial filtration technology. We have been producing and supplying a wide range of pumps and accessories, water treatment systems, electric motors, frequency controllers, valves for controlling flow, horticultural fans, and industrial filter systems for more than 35 years. We offer specialist advice and fast, extensive technical services to our customers in agriculture and horticulture, the manufacturing industry, contracting and the public sector. Our numerous innovative products are sold all over the world.

Van der Ende Groep supplies high-quality products for various markets worldwide (greenhouse horticulture trough dealers/installers). The company's own strong brands are also sold globally. Delivering pumps to the U.S. or installing a reverse osmose system in Australia poses no problem as Van der Ende Groep has the logistical means at its disposal to arrange this with the greatest precision.

Innovation plays a key role within Van der Ende Groep. Not only in the development of new products, but also in the creation of customized solutions for companies. This has resulted in many great products and systems, some of which we have developed together with our customers. Water treatment systems and ventilation systems, like the Poseidon and the Airmix<sup>™</sup>, are outstanding examples of such partnerships.



After many months of preparation and an intensive period of renovation, in the summer of 2018 Van der Ende Groep moved into new premises. The state-of-the-art building at Aartsdijkweg 23 in Maasdijk is an excellent location with all imaginable facilities and technologies, ensuring that Van der Ende Groep is again completely ready for the future!





#### WE ARE GLAD TO SHARE OUR KNOWLEDGE WITH YOU



#### Vision

As Van der Ende Groep, we wish to play a decisive role in the area of the global water and food challenges. With the aim of making a contribution to a more sustainable world. For this purpose, we will mainly use our own innovative products, knowledge and experience. Our preference is to approach issues from a non-standard perspective.

#### Quality

Van der Ende Groep sells high-end brands. The products are tested in-house before inclusion in our range. Many of our own quality brands have occupied a prominent position within the most diverse sectors after years of development. We are also constantly in search of new products that can complement our range. The company has ISO 9001:2015 certification and therefore operates in careful compliance with the requirements imposed on the quality management system.

#### Sharing knowledge

We support our range of products through an extensive and thorough service system, and provide professional advice that includes documentation and product training afternoon sessions at request or during the introduction of a new product. We are glad to share our knowledge with you.

#### Van der Ende College

Van der Ende College is an in-company training programme for all employees working at Van der Ende Groep, customers and partners. Providing training in a targeted manner allows us to guarantee our customers continued added value, while contributing not only to our employees' general level of knowledge but also to their personal development.

#### Thinking together

In a nutshell, we think further. We analyse, advise and calculate with the aim of providing you with the best performance. Our technicians are on hand to carry out preventive maintenance, repairs and to install complex projects. Our well-organised emergency repair service is on standby 24/7. Van der Ende Groep's technicians are equipped with all the tools and instruments needed to resolve calamities immediately. If required, they can provide alternative solutions to ensure the continuity of your company. Maintaining a comprehensive stock and striving for short delivery times are self-evident, in our opinion.

#### Flexibility

Flexibility is one of our keywords and is possible thanks to the short lines within the company. You notice this for example when we respond to a failure quickly and adequately or come up with an emergency solution on site.

#### Service

You are assured of quality when you purchase a product from our range. We guarantee that you can expect global assistance and support thanks to the strong partnerships we have forged with our suppliers and dealers.



#### OWN BRANDS:

- o Airmix™
- o Aquarius
- o Enmix
- o Envalve
- o Enbar
- o Enfan
- o Enpres
- o Nexus
- o Phyto-Drip®
- o Poseidon
- o Verti-Fan®
- o Moor 4C

#### OTHER BRANDS:

- o Affetti
- o Allen-Bradley
- o Alpha
- o Centra
- o Danfoss HPP
- o Espa
- o Faggiolati
- o Finder
- o Flygt
- o Fox LNS
- o Freddy
- o GGE
- o Goulds
- o Grindex
- o Hawk
- o Honeywell
- o Hydrovar
- o Injecta o Jabsco
- o Knoll
- o Kolmeks
- o Lowara
- o Metal Work
- o Nocchi
- o Oase
- o OBL o PGI
- o Pratissoli o Proril
- o Reko
- o Selwood
- o Sirai
- o Staka
- o Subrenat
- o Tellarini
- o Tsurumi
- o Turbo Seperator
- o UAS
- o Vacon (Danfoss)
- o WEG
- o Xylem
- o Ziehl Abegg

## AE



#### Markets

Van der Ende Groep is active in numerous markets, for example:

- o Agriculture and horticulture
- o Government
- o Contracting
- o Industry
- o Culture, sport and leisure
- o Food and beverage











#### Projects

Van der Ende Groep has realised the following types of projects in the Netherlands and abroad, to name but a few:

- o Fountain installations
- o Sewer and drainage installations
- o Renovation of sewer installations
- o Pressure-boosting installations
- o Filter installations
- o Geothermal injection installations
- o Cooling water installations
- o Water treatment installations
- o Crop protection installations
- o Drainage works



#### History

The company was founded in 1985 by Piet van der Ende. He started by repairing and overhauling water pumps for the greenhouse horticulture sector, but soon branched out into the sale of new pumps and related equipment. Alongside these more traditional items, he also launched the first innovative products. As the business continued to grow, in 1987 the company moved to the old premises in Maasdijk.



The present Van der Ende Groep was formed as a result of new companies being established or acquired: Van der Ende THO in Oss, Phyto-Drip BV, Van der Ende Metaal, Moor Filtertechniek and Artemis Systems. The company's activities and product range expanded rapidly, both nationally and internationally. It therefore moved again in 2018, to an A-list location on the Coldenhove business park in Maasdijk. A formal change of management also took place in the summer of the same year: Piet's son Lex succeeded him as the managing director, heralding the start of another new phase for Van der Ende Groep.



Our product range is varied and dynamic. The sales department will gladly help you finding the product that meets all your requirements. You can expect to receive outstanding support and after-sales service.

### PUMPS

Van der Ende Groep offers an incredibly wide range of pumps in different types and from different brands.

#### END SUCTION PUMPS

Available in various versions and materials such as cast iron, bronze, plastic, stainless steel and duplex.



### SELF-PRIMING PUMPS

Available in various versions and materials such as stainless steel, cast iron, bronze and plastic.



### MULTI STAGE PUMPS

Available in various versions and materials such as stainless steel, cast iron and bronze.





### SUBMERSIBLE PUMPS

The market for submersible pumps offers numerous brands and versions. Van der Ende Groep, however, has specialised in a number of brands that have proven themselves over the years. Other brands are available on request.



### GRINDEX PUMPS

We carry a comprehensive range of products, including drainage, sludge, INOX and slurry pumps. We perform repair, overhaul and maintenance work on pumps. In addition to a wide range of pumps in stock, we also supply all the necessary accessories, such as pipe joints, hose sets and spare parts.



### SELWOOD MOBILE PUMP SETS

Van der Ende Groep is exclusive dealer of Selwood pumps in the Netherlands and Flanders. Selwood has 70 years of experience in designing and producing (mobile) pump sets for the government, industry and construction sectors. The superior quality, reliability and the leading sound-damped enclosures are typical of these pumps.



### **BOREHOLE PUMPS**

Available in various versions and materials such as stainless steel, duplex and bronze. Special versions for hot water, salt water and thermal energy storage are also available.



### **BOOSTER PUMP SETS**

Standard and tailor-made booster pump sets.





### POSITIVE DISPLACEMENT PUMPS

Available in various versions and materials such as cast iron, stainless steel, duplex, brass and plastic for such applications as dispensing technology, and also cleaning and humidifier systems. Also suitable for highly viscious liquids.



### IN-LINE & END SUCTION CIRCULATION PUMPS

Available in various versions and materials such as stainless steel, cast iron and bronze.

Van der Ende developed a complete line of heat pumps for the greenhouse horticulture industry in collaboration with Xylem Lowara. These pumps are also suitable for various other applications. The line includes pumps for smaller as well as greater capacities with lower discharge heads, in which it comprehensively meets the demands of the horticulture sector. Van der Ende's new and user-friendly Curves online selection tool has vastly simplified the selection process for its customers: www.curvesselectiontool.com.





### INDUSTRIAL AUTOMATION

The automation of a production process or system is usually invisible. The various components perform their tasks seamlessly somewhere in a switch box.

- o PLCs
- o Soft starters
- o Relays
- o Time relays
- o Magnetic switches

- o Motor protection switches
- o Frequency converters
- o Bus systems
- o Touch screens
- o Sensors







We provide training courses and sessions to instruct our customers about maintenance to their systems and installations, and about energy-saving issues. Our website also features a special 'support button' for immediate support.

### ELECTRIC MOTORS

Electrical motors determine for 70% the energy consumption of the industry. The prime electrical motors of WEG are made for high quality performance (up to IE4). They are also suitable for Atex environment up to zone I/2I and they are equipped with UL/CSA. The electrical motors are used for pumps and fans, among other things.



### **INDUSTRIAL FILTRATION**



We offer high-quality filtration solutions for the most diverse air and liquid applications. When you choose one of these solutions, you are assured of good air and liquid quality. We can assist you with individual as well as central filter systems for water, emulsion (mist), oil (smoke), washing liquids, waste water, plasticiser vapors, welding fumes and dust.

Moor Filtertechniek, part of Van der Ende Groep, has been providing solutions for fluid and air filtration since 1990. With roots in the metal processing industry, over the last years they have become active in several markets. Since 2013, Moor Filtertechniek is also producer of various innovative systems for water treatment.

- o Paper, vacuum, infinite and deep band filters
- o Liquid and chip centrifuges
- o Chip conveyors
- o Oil skimmers and separators
- Emulsion mixers and refill installations 0
- Mist and extraction systems 0
- Oil mist and smoke extraction systems o Water treatment systems 0

- o Grinding dust extraction
- o Mobile liquid, chip and filter systems
- o Filter paper
- o Static filter screens
- o Rotary drum filters
- o Screw conveyors
- o Water extraction presses

### COOLANT MANAGEMENT

#### For monitoring, producing and cleaning coolants

- o Always enough coolant with the right mix ratio
- o Longer service life of coolants and equipment
- o Lower maintenance costs

The quality and mix ratio of the coolant is crucial in the machining process. Moor Filtertechniek offers a wide range of solutions to guarantee both the quality and the mix ratio. These solutions are optionally expanded with the (central) filtration (see Moor 4C). The product range covers the entire spectrum from a simple emulsion mixer to a complete Top-up system, where coolants are mixed with water, buffered and distributed.



#### FILTRATION SYSTEMS FOR FLUIDS

#### Filtration systems for coolants

- o Less wear & tear and maintenance on machines and equipment
- o Higher product quality
- o Compact and efficient

We supply a wide range of fluid filtration systems. From a standard paper belt filter to the innovative central filter system Moor 4C. In addition to the (standard) belt filtration systems, we have an extensive range of magnetic belt filters, vacuum belt filters and centrifuges.



### FILTRATION SYSTEMS FOR AIR

#### Filtration systems for dust, smoke, oil mist and emulsion mist

- o Better air quality
- o Helps to ensure a healthy, clean and safe working environment
- o Lower energy costs through recirculation

We offer a complete package of air extraction and filter systems, with both central and local systems for:

- o Oil mist
- o Emulsion mist
- o Plasticiser fumes
- o Welding fumes
- o (Grinding) dust extraction



### CHIP TREATMENT

#### Transporting, shredding, centrifuging and briquetting

- o Customer-specific machines
- o Chip treatment from machine to container
- o Optimisation of waste stream

Moor Filtertechniek offers several options for the treatment of chips, ranging from a chip shredder to a briquetting machine. By processing chips correctly, for example by degreasing them, you can substantially cut your costs. We also supply highly effective solutions for internal transport of chips.



### WATER TREATMENT AND FILTRATION

Van der Ende Groep is manufacturer of innovative (modular) water treatment systems. Our specialists will be happy to examine your water treatment situation with a view to find the solution that best meets your requirements.

#### Water treatment using the Aquarius and Nexus reverse osmosis systems

We offer units for a wide range of applications, from the production of water for fogging equipment to the cleansing of polluted tap water, the preparation of emulsion water and the treatment of process water.





#### Water filtration

We offer various solutions to filter water, such as disc filtration, multimedia filtration, strip towers and iron removal.



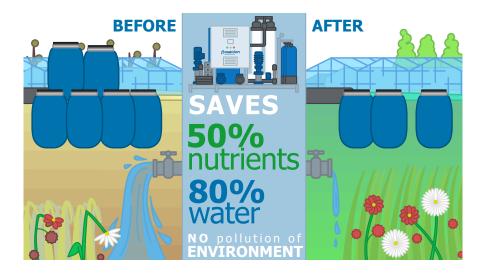
#### Accessories

- o Borehole pumps and frequency converters
- Strip towers (BOT): available in various capacities, in-house manufacturing of ventilation and degassing towers
- o CIP units
- o Extensive monitoring options
- o Components and accessories (membranes, anti-scalants, etc.)
- o Service and maintenance





#### Poseidon WINNER Category Sustainabilit GreenTech innovatio award 2018 Poseidon sodium extractor The Poseidon was developed specially for growers who sluice off water to discharge sodium: a system that extracts sodium from drainage water with a maximum retention of nutrients. The Poseidon combines membrane filter technology and activated carbon. The water treatment system is expanded with a reverse osmosis system to concentrate the water to be discharged and, in doing so, reducing it by 80%.



#### The greatest benefits of the Poseidon:

- o Decreases sodium content in clean drain silos
- Greatest possible retention of nutrients (50% savings)
- o Easy to install (plug-and-play)

- o Low operating costs due to low energy consumption and low maintenance costs
- Water savings of 80% can be achieved by expanding the system with a reverse osmosis system (optional)

### PAPER BELT FILTERS AND SIEVE BENDS

We offer a wide range of paper belt filters for various water applications. A belt filter is applicable to water flows in the horticultural industry.

#### The various applications include:

- o Drain water (ebb and flood) systems
- o Reservoir water
- o Rinse water for sand filters
- o Bypass filtration for clean water tanks



We supply paper belt filters in a variety of configurations, from filters with a separate top section to comprehensive systems including a tank, operating controls and pumps. The accessories we offer include filter paper in a wide range of grades.



Sieve bends are easy-to-use systems for separating solids from process water and wastewater. Our sieve bends stand out from other systems because of their unique 'shear effect', continuous operation, simple construction and minimal maintenance.

#### They are used in:

- o Greenhouse horticulture
- o Food industry
- o Slaughterhouses

- o Zoos
- o Fishing industry
- o Tanneries

### HORTICULTURAL FANS

Van der Ende Groep is a pioneer when it comes to expertise in air circulation within the greenhouse sector. Do not hesitate to benefit from our expertise and discover the opportunities for obtaining the best results available to you and your customers. We will gladly advise you, calculate the best distribution and make a quotation that includes a drawing.

- o Enfan horizontal air circulation
- o Verti-Fan® vertical air circulation
- o Airmix<sup>TM</sup> controlled ventilation
- o Ziehl Abegg axial and centrifugal fans







### APPLICATION TECHNIQUES

We invest in the development of new techniques and the refinement of existing ones for the application of crop protection products. We can justifiably say that this is yet another area that falls within our expertise thanks to the wealth of experience we have acquired over the years.

o Enbar LVM (Low Volume Mist) – a mist device for treating an area with crop protection products



o Phyto-Drip<sup>®</sup> – high-tech crop protection technique that applies crop protection products directly to the seed (cabbage, lettuce, etc.)



### ENMIX MIXER

The Enmix is an agitator mixer that can be used to keep liquids in motion in fertilizer containers or other storage tanks for mixed liquids.



The Enmix Light was specially developed for smaller mixing tanks that can hold up to a maximum of  $2 \text{ m}^3$ .





# WASTEWATER

Most sewerage and wastewater installations are located below ground. We can supply and install everything you need to complete your project. We produce Staka vault hatches.

- o Concrete pump stations
- o Plastic pump stations
- o Pre-assembled pump stations
- o Cast iron manhole covers
- o Aluminium covers
- o Telemetry
- o Switch boxes
- o Non-return valves
- o Staka vault hatches





### CONTROL VALVES

Honeywell control valves and Centra mixer valves are suitable for water temperature control in heating, cooling and air handling systems.



### **BUTTERFLY VALVES**

Envalve butterfly valves have been designed to shut off or regulate flow. They can be controlled remotely via an electric or pneumatic motor.



### **SOLENOID VALVES**

Available in various versions and materials such as brass and plastic.









### ACCESSORIES

Often they are only small parts that you initially overlooked, but they are vital for finishing your installation (such as a customized AE flange set or a AE water thermostat). We also supply pressure transmitters, including all accessories. Our range of pneumatic products – the visible components of automation – offers everything you need to complete your pneumatic controls.



### COMPONENTS

We also offer a comprehensive range of components. We have many brands in stock.







#### **SERVICE**

Van der Ende Groep endeavours to take care of everything for their customers in all areas. This can range from advice on ensuring the lowest possible energy consumption to the maximum durability of all components for pumps or other machines. In this way we can guarantee continuity within your company.

#### 24/7 repair service

You can call on our technicians any time of the day or any day of the week. In the event of a failure, simply call our emergency repair service (nights as well). In most cases it will carry out repairs on site and replace the affected parts. We are a Xylem Service Partner, but our specialists naturally also have many years experience with all other brands.

#### Precision alignment on site

We also recommend precision alignment for pumps that already have been installed. Surveys conducted on pumps that have already been installed demonstrate that fewer than 10% of all rotating machines have been balanced within tolerance limits. Our service team can verify this for you on your machine.



#### **REPAIR AND OVERHAUL**

If you have a pump that needs to be repaired or overhauled, Van der Ende Groep has the knowledge and expertise in-house to assist you. We started more than 35 years ago as a specialist in the repair and overhaul of pumps of all brands, and this is still one of our key activities. The overhaul-exchange system that we developed, permits us to minimise delays in your company. Thanks to this system, we almost always have an overhauled version of the most commonly used pumps in house. All you need to do, is hand in your pump and you can then leave with a replacement pump immediately. Both our sites in Maasdijk and Oss offer this service.



Our stock of overhauled exchange pumps and other equipment includes the following brands: Selwood, Jabsco, Lowara, Wilo, Grundfos, Johnson, Grindex, Ebara, Stork, Goan, Duijvelaar, Ridder, Honeywell, Centra, Vacon and Hydrovar.





Our mechanics can answer any question you may have. Do you only need to replace a part? Would you like your motors to be bound or rewound? Or do you require an innovative modification to your pump?

The assistance that Van der Ende Groep provides, is not restricted to pumps alone. Valves, motors, fans, frequency converters, delay motors, worm-gear speed reducers and so forth also fall within the company's scope of expertise. We are familiar with practically every brand. Each pump and technical component is thoroughly tested after it has been repaired or overhauled. We can also provide assistance with pumps and installations that are too large or heavy for a complete overhaul. The solution here involves a partial overhaul on site. In such a case, blasting and spraying can be skipped, but you can still rest assured that you will receive optimum maintenance.

As quality is our highest priority and we aim to continue to respond to increasingly higher demands, as well as larger and higher capacities, we developed a state-of-the-art testing installation. We also increased the capacity of our electrical connection and our voltage range and are now able to test submersible, borehole and vertical lineshaft pumps as well as end suction pump sets. The testing installation is fitted with advanced measuring equipment, Vacon frequency converters and various standardised foot-coupling devices.





#### Precision alignment

The alignment is essential for the installation of every rotating machine driven by a coupling. Our professional technicians use laser equipment for this purpose.

The benefits of alignment are:

- o Durability of bearings, seals and couplings is extended
- o Lower energy consumption
- o Less vibration and noise
- o Less machine downtime

Our technicians will gladly assist you with your balancing requirements and vibration measurements and analysis.



#### | (PREVENTIVE) MAINTENANCE

Operational reliability starts with maintenance. Preventive maintenance is crucial. Maintenance is the first requirement, no matter whether it merely concerns a pump that operates daily or only in emergencies (such as in a fire-extinguishing system). Van der Ende Groep is also your maintenance company, regardless the installation in question. We will maintain it in accordance with professional standards and replace components on time.



Our technicians are constantly trained and retrained, so you can rest assured that you are benefiting from the latest and most efficient techniques and technologies. Our technicians are all in possession of the required certifications to ensure their ability to perform their work in a safe and responsible manner. We can offer an annual maintenance contract on your request.



### PANEL BUILDING

Our panel construction department builds control panels and switch boxes for a wide range of projects. Van der Ende Groep's specialists will gladly think together with you, no matter whether you require a single switch panel or multiple ones. If you like, we can take care of the entire process, ranging from the design and drawings to the layout of the switch boxes. Our department can also provide special designs, such as a desk, a door with a window, a stainless steel box or specially designed lighting panels. Flexibility is a key component of the construction process: you can also supply your own materials or take care of some stages yourself.

We supply programmable logic controllers (PLCs) and test all panels extensively. We can do this on site, if required, so that you can start using them immediately. Since we stock many brands such as Sarel, Finder, Allen-Bradley, Omron, Hager, Legrand, Vacon, Carlo Gavazzi and Crouzet, we can respond incredibly quickly if you experience a failure or wish to expand.

Besides that we can also build your panels in accordance with the requirements of the UL and CSA standards. And we can assist with the on-site testing and commissioning of your panels.



### METAL AND CONSTRUCTIONS

Bending work, welding and metalworking: Van der Ende Groep has everything you require under one single roof, tailored entirely to your requirements. The possibilities are countless, no matter whether you need a stainless steel cabinet or an aluminium air duct with a four metre diameter. Similarly, if you require a limited series or individual components with unique specifications, we will work with the utmost precision. We can also apply a protective layer.



- o Stainless steel frames
- o Sheet steel boxes
- o Stainless steel constructions
- o Aluminium constructions
- o Cutting
- o Rolling
- o Aluminium ducts

- o Stainless steel boxes
- o Sheet steel constructions
- o Bending work
- o Angle bending work
- o Welding
- o Vault hatches





### PROJECTS

Are you searching for a project partner to whom you can entrust a lot of work? If so, Van der Ende Groep is the project partner you are looking for. A partner that can design, build and install your system. A partner that boasts considerable and extensive experience in fountain installations all the way through to sewer systems. Do you require a simple installation, such as replacing a valve in a sewer pump station or installing a new pressure pipe? Or do you have a more complex project, such as replacing booster pump systems or the complete delivery and installation of a sewage pumping station along with a concrete well, multiple pumps and a switch box with telemetric controls? We are standing by to help you by drawing on our wealth of expertise, and to live up to our reputation as a reliable partner.

If you are interested and would like more information about our company or one of our products or services, please do not hesitate to contact us or visit our website.





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