

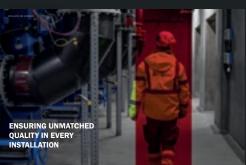
30 YEARS OF EXCELLENCE IN AQUACULTURE SOLUTIONS













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UNIQUE SOLUTIONS FOR AQUACULTURE

Over the past 30 years, we have been at the forefront of developing innovative piping systems that meet the specific needs of our clients. With a commitment to quality, reliability, and tailored solutions.

Production

Designing and planning

Engineering

Special components

Installation Co

Complete piping systems

Maintenance and inspection

Supervising

WORLD LEADING SPECIALISTS IN INNOVATIVE PIPING SYSTEMS, THROUGHOUT THE ENTIRE CHAIN

Our in-depth understanding of the aquaculture market makes us a key partner for land-based fish farms. As demand for sustainable seafood grows, we meet these needs with advanced technology and a comprehensive approach to system design, engineering, production and installation.

The aquaculture industry is expanding rapidly due to global population growth, concerns about overfishing, and rising demand for sustainable food. Land-based fish farming is a critical solution, and with our expertise, we deliver innovative piping systems that support sustainable and efficient operations.

We provide a wide range of products and services, including custom pipes, fittings, sheet materials, and complete engineering solutions. Our team manages every project stage — from planning and design to manufacturing, installation, testing, and delivery — offering turnkey solutions with high-quality products and seamless execution.

With a team of more than 50 skilled professionals, we oversee every stage to ensure precision and excellence. Our engineers have extensive experience in land-based aquaculture projects, including hatcheries, fish farms, and processing plants, offering clients reliability and peace of mind.

As a complete supplier of piping systems, we have supported land-based aquaculture development for decades. Our team's expertise allows us to deliver innovative solutions that boost the sustainability and efficiency of fish farming operations.

We take pride in anticipating future trends and offering innovative solutions for tomorrow's challenges. Driven by a commitment to innovation, quality, and customer satisfaction, we are a trusted partner in global aquaculture. As demand for sustainable seafood grows, we support the long-term sustainability of both the industry and the planet.



6 SIMONA AQUACULTURE

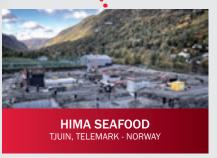
folds, standard pipes and fittings.







Soul of Japan – Tsu operates a PST RAS salmon farm. Our delivery includes special parts, standard pipes and fittings, as well as start-up supervising services for the client.



Hima Seafood operates a RAS trout farm with an annual production capacity of 8,000 tonnes. Our turnkey deliveries include engineering, installation, supply of standard pipes and fittings, as well as the production and delivery of special parts for aquaculture.



ZeHui Aquaculture operates an eel farm in the north-eastern part of Fujian, China. Our delivery includes a total of more than 2,000 tonnes of SIMONA PE 100 large-format sheets and welding rods from our Jiangmen plant in China.

AQUACULTURE SIMONA





ACTING SUSTAINABLY

Sustainability is of central importance in a world facing resource scarcity and the impacts of climate change. As humans, we must understand and improve the effects of our actions on the climate, living conditions, and society.

Water quality Commitment Care Climate Trust Obligation Importance Recycling

Animal health Environment

Green technologies

Nature

Circular economy

This obligation is not only increasingly mandated by legislative bodies worldwide but is also a goal that SIMONA Stadpipe pursues with deep conviction. As of 2022, sustainability has been firmly embedded in our corporate strategy at SIMONA, leading to a wide variety of measures and changes.

Plastics for the Future

Plastics play a crucial role in the necessary global transformation, particularly regarding the energy transition. Our contribution: CO2-efficient production, innovative materials made from bio-circular or recycled raw materials, long product lifespans, and the establishment of closed material cycles. One example is polyethylene (PE): this material is highly durable and easily recyclable. We recycle end caps and production offcuts from our deliveries into new PE products or process them through environmentally responsible incineration.

Sustainable plastics from our company, marked with our Eco-PlastIQ eco-label, also feature a significantly reduced carbon footprint. They include products made from recycled materials that support the circular economy, as well as plastics produced from bio-circular raw materials, largely eliminating the need for new fossil resources.

Efficient Aquaculture

Aquaculture systems play an important role in global food security. They help reduce overfishing in the oceans and ensure the highest standards in water quality and animal health. With many years of expertise and the use of innovative technologies such as recirculating aquaculture systems (RAS), SIMONA Stadpipe contributes to making land-based fish farming more

efficient and sustainable. These systems purify and recycle up to 95% of the water and convert waste products into usable by-products.

Conserving Resources Together

By utilising advanced systems and materials, we create added value for people and the environment. However, we do not achieve this alone: only through collaboration and strong partnerships can innovative complete solutions be implemented, enabling resource-saving projects and setting new standards in aquaculture. Tailored solutions, precisely adapted to the needs of each application, also conserve resources, minimise material waste, save energy, and maximise product lifespans – a significant contribution to greater sustainability.

Global Sustainable Solutions

Our sustainability strategy encompasses products, processes, and people. Our aim is a livable future – with plastics that align with people and nature, fully in line with the United Nations' Sustainable Development Goals that guide us: clean water and sanitation (Goal 6), sustainable industrialisation and innovation (Goal 9), and the preservation of healthy marine ecosystems (Goal 14).

SIMONA is actively committed to CO2 reduction through optimised processes and investments in green technologies. All our products meet the standards ISO 9001:2015, NS-EN 12201, NS 416, and NS 9416.

AQUACULTURE SIMONA 11





FLOW-THROUGH

Flow-through technology has been fundamental to land-based aquaculture, with a reliable method for sustaining healthy aquatic environments. By continuously circulating fresh water through fish tanks, this system closely replicates natural water cycles.

By continuously circulate fresh water, flow-through systems maintain optimal conditions for aquatic species, ensuring stable oxygen levels, proper temperatures, and low waste buildup. Known for high biosecurity, these systems reduce disease risk and contamination, making them among the safest and most resilient options for land-based aquaculture.

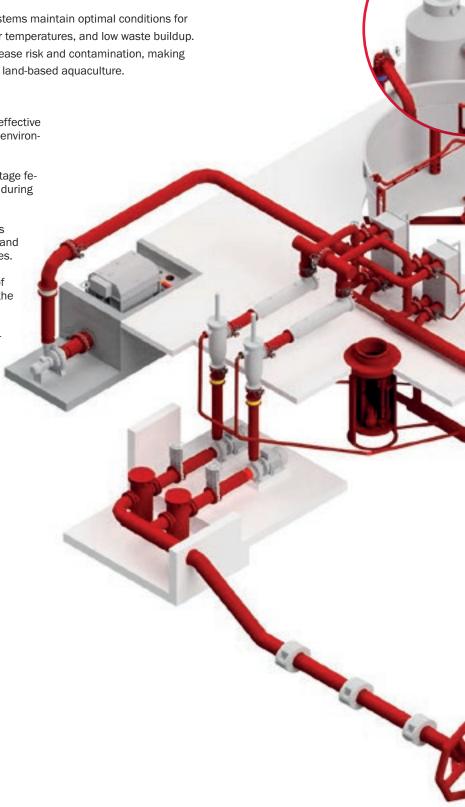
The system is fully adaptable, providing equally effective performance with both freshwater and seawater environments.

The preferred solution for hatcheries and early-stage feeding operations, ensuring reliable performance during critical developmental stages.

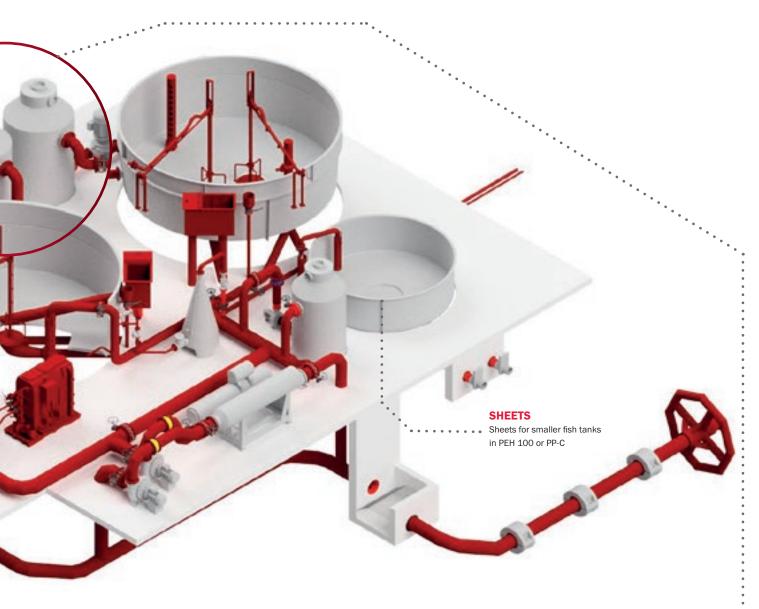
 Advanced purification of intake water guarantees superior water quality, minimizing contaminants and maintaining optimal conditions for aquatic species.

 High level of biosecurity, ensuring minimal risk of disease transmission and contamination within the system.

Efficient, user-friendly, and highly reliable operational design, with clear, straightforward procedures and supervision for seamless day-to-day management.



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HYBRID FLOW-THROUGH

A hybrid system operates similarly to a flow-through system but offers significant efficiency improvements, particularly for farms with limited access to raw water. Unlike traditional systems that rely on continuous exchange of large volumes of water, a hybrid system optimizes water use by recycling and reusing part of the water, reducing overall demand.

A hybrid system uses only about 35% of the water required by a conventional flow-through system, making it a more sustainable option for farms facing water scarcity. This reduction is achieved through advanced filtration, treatment, and controlled circulation, maintaining optimal conditions for farmed species while minimizing water waste.

- User-friendly and highly reliable operational design, with clear and straightforward procedures for easy implementation and oversight.
- Efficient water recycling system that recovers up to 65% of the water volume from each tank, significantly reducing overall water consumption.
- Integrated CO₂ degassing system that ensures optimal removal of carbon dioxide, maintaining a stable and healthy environment for aquatic life.
- Simple, reliable, and operationally efficient, with easy-tofollow protocols for seamless day-to-day management and supervision.

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AQUACULTURE SIMONA

RECIRCULATING AQUACULTURE SYSTEM

CIP CLEANER A Recirculating Aquaculture System (RAS) creates a sustainable closed-loop Innovative and high-tech system for Cleaning ecosystem for fish and water-treatment microorganisms. Key to RAS are filtrain Place (CIP), which removes impurities and tion methods like Moving Bed Biofilm Reactors (MBBR) and Fixed Bed Biofilter harmful particles from pipe-based facilities. Reactors (FBBR), which break down organic waste and maintain water quality. Can be easily moved around at the facility RAS enables fish farming in areas where methods are unsustainable, reducing environmental impact by minimizing water use, preventing pollution, and promoting more efficient fish production. Building a RAS facility requires specialized expertise and in-depth knowledge of aquaculture systems, water treatment technologies, and engineering design. Successful operation of RAS depends on comprehensive training for operational staff and technicians, ensuring they can efficiently manage and maintain the system's complex components. Up to 99% of water is recycled within RAS facilities, dramatically reducing water consumption and minimizing environmental impact while maintaining optimal water quality for aquaculture operations. SIMONA Stadpipe is a trusted turnkey supplier for the piping systems used in RAS facilities, providing end-to-end solutions from design to installation and ensuring optimal performance. **PIPELINE STRAINER** Efficiently removes particles to prevent blockages and improve system performance. Made from durable PE 100, it's ideal for use in demanding environments, including acidic and **MANIFOLD** polluted water. Manifolds reduce space requirements compared to standard pipe parts. The extraction method on our manifolds ensures efficient flow throughout the system. Maintaining water quality by distributing or removing water from different areas, supporting proper conditions for aquatic species.

SHEETS

Sheets for lining in concrete tanks in PEH 100 or PP-C

DRAINAGE BOX

Designed to collect dead fish and particles from the fish tank, preventing diseases from spreading and improving the tank's efficiency and production.

INLET PIPE - STREAM

Built to hydraulically regulate water inflow and speed in tanks, optimising fish growth and reducing stress for the fish. Allows user to regulate water circulation in the fish tank.

OUTLET FUNNEL FOR FISH

Developed to transport fish from a fish holding tank and on to a central fish transport tank. The outlet funnel is placed in the bottom of the tank and is supplied with an open / close mechanism.

FISH TRANSPORT

Throughout the life cycle of the fish in a facility, fish are moved on to larger tanks via pipes and pumps. SIMONA Stadpipe designs and supplies complete piping systems.

SLUDGE PUMP STATION

Collection of sludge from drum filters and other contaminated water. Sludge is pumped on to a central sludge station for further processing.



WHERE IMAGINATION MEETS PRECISION – TURNING IDEAS INTO REALITY



SOLUTIONS THAT PUSH **THE LIMITS**

The success of land-based aquaculture depends on tailored-designed piping systems. Our expertise ensures optimal water quality and flow for healthy fish growth.

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3D modeling Pipe diagram Designing and planning Dimensioning

Calculations
Special components
Component list
Hydraulic profile
Designing

Tank hydraulics

Key stages of engineering:

Project definition and conceptual design
Before engineering starts, the calculation basis must be
defined by gathering requirements from stakeholders, such
as initial sketches or layouts to visualize the overall system
design, P&ID available and calculation basis for water
volumes. The Norwegian regulations and the NS 9416
standard are the basis for the engineering work.

Detailed 3D modeling and component integration
 Create detailed 3D models of the piping system, integrating all components such as valves, pumps, and filters to ensure proper fitting and functionality.

Clash detection and simulation
 Conduct clash detection to identify conflicts between pipes and structural elements. Run simulations to analyze fluid dynamics, pressure drops, and flow rates, validating performance against design requirements.

Documentation, review, and approval
Generate detailed documentation, including 3D model
views and specifications, and present the model to stakeholders for review and approval, incorporating feedback to
finalize the design.

SIMONA Stadpipe does the work from dimensioning, drawing, production and delivery of pipe sections, pipe parts and other pipe structures. Using advanced 3D modeling, we create efficient layouts that minimize issues and ensure smooth integration of components for reliable water flow and easy maintenance. By using high-quality, corrosion-resistant materials, we support the health and growth of aquatic species, with designs tailored to each customer's unique challenges and goals.

3D modeling provides clear visualization of the piping system, reducing errors and improving understanding of the facility's complexity. It optimizes the placement of tanks, filters, and pumps for efficient water flow and easy maintenance. Advanced software allows for hydraulic analysis to optimize performance and energy efficiency.

AQUACULTURE SIMONA

SIMONA® SmartTank

Efficient calculation of rectangular and cylindrical tanks 22 NA AQUACULTURE

SIMONA® SmartTank -

Tank analysis software that sets new standards

Our SIMONA® SmartTank structural analysis software offers you an exciting array of possibilities for calculating thermoplastic rectangular and cylindrical tanks. We are continuously enhancing our software so that you can look forward to innovative new program components and features that will enable you to maximise both cost-effectiveness and safety in the design of your tanks.

In tank and apparatus construction, two aspects are of essential importance: the right material that is tailored to your require-ments and the right partner with the expertise needed to provide you with pertinent advice – from the selection of materials to pre-engineering in the field. SIMONA offers you the best of both worlds – premium product quality and excellent service.

In close collaboration with our development partner, LU Engineering Software GmbH, we have consolidated decades of experience in the area of tank analysis so that you can benefit from intelligent software. The software is designed to meet the needs of our customers and is intuitive to use. From program structure to the design of the user interface, the focus of SIMONA® SmartTank is always on user benefit.

The program offers you:

- Maximum cost-effectiveness in the design of tanks
- The option to export parameters to external programs (e.g. CAD software)
- Significant potential for cost savings thanks to realistic FEM formulation of circumferentially reinforced tanks and all the structural steel members, thus revolutionizing the analysis of these components
- Network-capable application and administration of the software
- Centralised administration of all projects in a project manager
- Simple, convenient user guidance
- Plausibility check and validation of all inputs
- High-quality, verifiable and graphically sophisticated out-puts as well as complete documentation printouts
- Optimised service and support via hotline with ultra-fast response times.





TAILORED PIPING SOLUTIONS – DRIVEN BY EXPERT TEAMWORK



ANYTHING IS POSSIBLE

The production of piping systems is more than just a process; it is the result of commitment, expertise, and teamwork. Our employees play a crucial role in ensuring that each system meets the highest standards of quality and performance.

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Manifolds

CIP tank

Level pipe

Prefabricated piping systems

Manifolds Prod

Inlet pipes

Drainage box

Pipeline strainers

Prefabricate

Production of standard parts

Outlet funnel for fish

Our technicians and engineers work together to design and manufacture customized piping systems, focusing on efficiency and sustainability. Each project starts with a thorough analysis of facility needs, enabling us to develop innovative, reliable solutions using modern technology.

Quality is a priority throughout production, with detailed inspections at every stage, from material selection to final assembly. This ensures all components meet strict standards for durability and performance in challenging aquaculture environments.

We are dedicated to sustainable practices that prioritize resource management and waste reduction to minimize our environmental impact and promote a sustainable future for aquaculture. Our employees are central to this mission. We invest in their training, ensuring they stay updated on the latest technologies and industry best practices. This commitment supports their growth and fosters a culture of continuous improvement, driving quality and innovation in our piping systems.

Key stages of our production:

Design and material selection

Based on specifications from the customer and our engineering department, layout and material selection are made before production starts.

Fabrication and quality control

Manufacture pipes and components, ensuring compliance with industry standards through rigorous quality checks.

Assembly and testing

Welding and machining using certified machines and personnel. Perform tests according to customer requirements. Arrange FAT in factory with customer.

Finishing and logistics

Prepare the finished product with protective coating and manage transportation to the installation site or customer.





YEARS OF EXPERIENCE

Piping systems play a crucial role in both production efficiency and animal welfare. Proper installation of these systems is essential to ensure optimal water circulation, effective filtration, and consistent distribution of oxygen and nutrients.

Welding

Construction managers

Installation

Project management

Control and testing

Checklist for control

Project management

Construction ma

On site Maintenance

Coordination of contractors

Each aquaculture facility has unique needs, and our experienced team designs customized piping systems tailored to water volume, temperature, and circulation requirements. We offer a full range of services, from initial consulting to complete installation.

For land-based aquaculture, we prioritize high-quality materials, such as polyethylene (PE), known for its resistance to corrosion, chemicals, and UV radiation, ensuring long-lasting performance in diverse aquaculture conditions.

At the heart of our operations are our skilled employees, who bring expertise in pipe installation and aquaculture technology. They ensure precise installation, conduct quality checks, and follow project plans while working closely with customers to tailor solutions. Their commitment to quality and safety ensures a smooth installation process and the safe operation of the facility.

Our key stages of the installation process:

Preparation

All projects, large and small, need thorough planning. Prior to the start of the project, progress, deliveries of materials and personnel are planned in cooperation with the customer. In projects, we deliver turn-key installed systems, or offer supervising on behalf of the client.

Underground piping

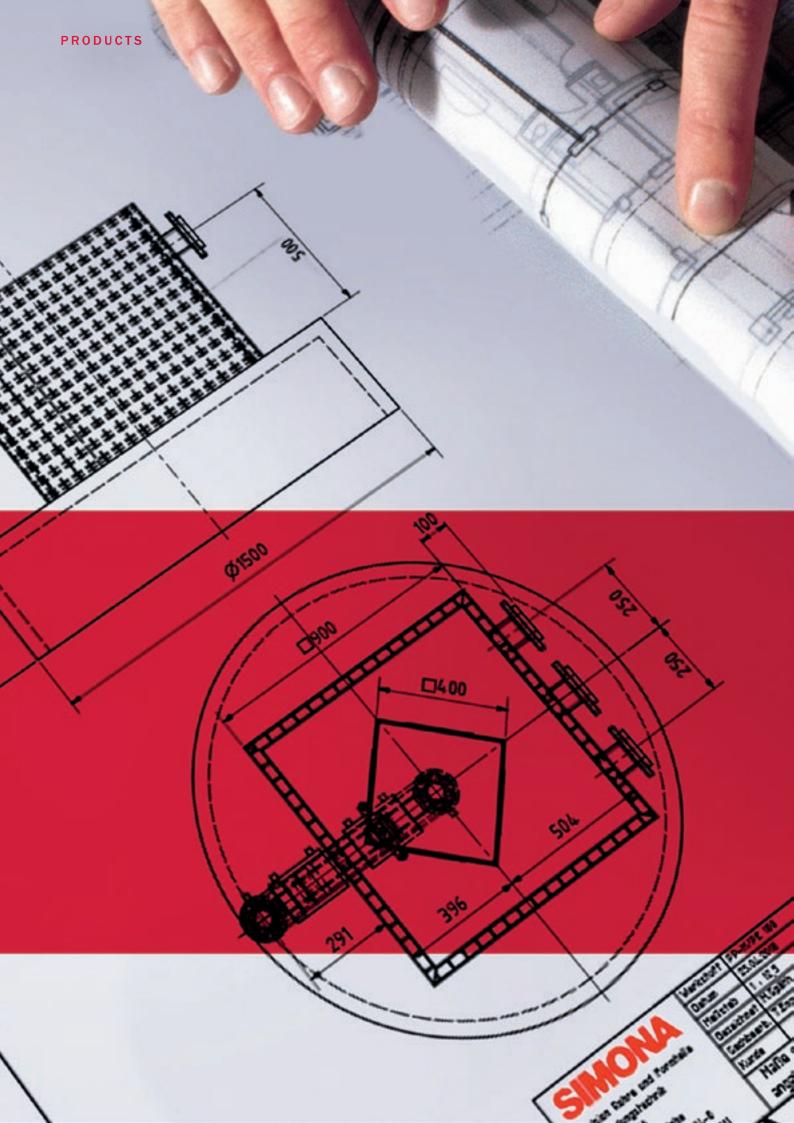
Before pipes are placed underground, the ground is checked whether it complies with requirements for leveling, frost resistant, ditch bottom and backfiling. Pipes under the ground are tested for tightness and checked with a camera before the casting work is carried out.

Installation

Our technicians use modern tools and methods to achieve the best possible result. Pipes are welded with butt welding and installed. All welds are documented with protocols and photos.

Documentation as built

Complete documentation is prepared on work carried out and delivered materials and special products. Drawings updated as built.







POLYETHYLENE

a true all-rounder

As a material, polyethylene (PE) is a true all-rounder when it comes to the construction of chemical tanks, systems and equipment used in seawater environment.

Range of PE pipes and fittings

| 5.05 111 11111 | ı, unless otherwise stated | SIMONA® PE 100 SDR 11 | SIMONA® PE 100 SDR 17 | SIMONA® PE 100 SDR 26 |
|------------------------|--|---|---|--|
| | | | | |
| es | - | - | _ | - |
| | | | | |
| 0 | Pressure pipes | 10 - 1000 | 32 - 1200 | 40 - 1200 |
| ings h short spigot | s for butt welding | | | |
| | Bends 90°, injection-moulded | 20 - 500 | 50 - 40 | 110 - 400 |
| | Stub flanges, injection- moulded/machined | 20 - 710 | 50 - 900 | 180 - 900 |
| | Tees, injection-moulded | 20 - 500 | 50 - 500 | |
| | Tees with reduced branch, injection-moulded | 90 - 225 | 140 - 225 | |
| | Reducers, concentric, injection-moulded | 25 - 315 | 63 - 315 | |
| | Reducers, concentric, machined | 160 - 630 | 315 - 1200 | 315 - 1600 |
| | Reducers, eccentric, injection-moulded | 160 - 630 | 160 - 630 | |
| | Reducers, eccentric, machined | _ | | 315 - 1000 |
| | End caps, machined | 250 - 630 | 250 - 800 | 200 - 1200 |
| ings | | | | |
| n elongated s | pigots for butt and electrofusion welding | | | |
| n elongated s | pigots for butt and electrofusion welding Elbows 90°, 45°, injection-moulded | 20 - 315 | 50 - 315 | - |
| n elongated s | | 20 - 315 | 50 - 315 | - |
| n elongated s | Elbows 90°, 45°, injection-moulded | _ | _ | 110 - 500 (R=Dx2,5 |
| n elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded | 32 - 500 | 50 - 500 | 110 - 500 (R=Dx2,5 |
| n elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless | 32 - 500 32 - 900 | 50 - 500 50 - 1000 | |
| n elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, | 32 - 500 32 - 900 110 - 900 | 50 - 500 50 - 1000 110 - 1200 | |
| n elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined | 32 - 500 32 - 900 110 - 900 20 - 630 | 50 - 500 50 - 1000 110 - 1200 50 - 630 | |
| n elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 | 110 - 1600 |
| a elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded Tees, segment welded Tees with reduced branch, | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 110 - 800 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 110 - 1000 | 110 - 1600 |
| n elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded Tees, segment welded Tees with reduced branch, injection-moulded | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 110 - 800 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 110 - 1000 63 - 315 | 110 - 1600 |
| n elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded Tees, segment welded Tees with reduced branch, injection-moulded Tees with reduced branch, pull out | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 110 - 800 63 - 315 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 110 - 1000 63 - 315 160 - 1200 | 110 - 1600 |
| | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded Tees, segment welded Tees with reduced branch, injection-moulded Tees with reduced branch, pull out Tees with reduced branch, welded | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 110 - 800 63 - 315 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 110 - 1000 63 - 315 160 - 1200 90 - 800 | 110 - 1600 110 - 1200 160 - 1600 |
| | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded Tees, segment welded Tees with reduced branch, injection-moulded Tees with reduced branch, pull out Tees with reduced branch, welded Cross, segment welded | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 110 - 800 90 - 630 110 - 800 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 110 - 1000 63 - 315 160 - 1200 90 - 800 110 - 1000 | 110 - 1600 110 - 1200 160 - 1600 |
| | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded Tees, segment welded Tees with reduced branch, injection-moulded Tees with reduced branch, pull out Tees with reduced branch, welded Cross, segment welded Branches 45°, injection-moulded | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 110 - 800 90 - 630 110 - 800 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 110 - 1000 63 - 315 160 - 1200 90 - 800 110 - 1000 63 - 225 | 110 - 1600 110 - 1200 160 - 1600 110 - 1000 |
| h elongated s | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded Tees, segment welded Tees with reduced branch, injection-moulded Tees with reduced branch, pull out Tees with reduced branch, welded Cross, segment welded Branches 45°, injection-moulded Branches 45°, pull out | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 110 - 800 63 - 315 90 - 630 110 - 800 63 - 110 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 110 - 1000 63 - 315 160 - 1200 90 - 800 110 - 1000 63 - 225 160 - 630 | 110 - 1200 160 - 1600 110 - 1000 160 - 630 |
| | Elbows 90°, 45°, injection-moulded Bends 90°, injection-moulded Bends 90°, 60°, 45°, 30°, 22°, 11°, seamless Bends 90°, 60°, 45°, 30°, segment welded Stub flanges, injection-moulded/machined Tees, injection-moulded Tees, segment welded Tees with reduced branch, injection-moulded Tees with reduced branch, pull out Tees with reduced branch, welded Cross, segment welded Branches 45°, injection-moulded Branches 45°, pull out Branches 45°, 60°, segment welded Reducers, concentric, | 32 - 500 32 - 900 110 - 900 20 - 630 20 - 630 110 - 800 63 - 315 90 - 630 110 - 800 63 - 110 | 50 - 500 50 - 1000 110 - 1200 50 - 630 50 - 630 110 - 1000 63 - 315 160 - 1200 90 - 800 110 - 1000 63 - 225 160 - 630 110 - 900 | 110 - 1600 110 - 1200 160 - 1600 110 - 1000 |

| Dimensions in m | m, unless otherwise stated | SIMONA® PE 100 SDR 11 | SIMONA® PE 100 SDR 17 | SIMONA® PE 100 SDR 26 |
|------------------|-----------------------------------|--|--------------------------|--------------------------|
| Special fittings | | | _ | |
| | Liner sleeve for concrete walls | 40 - 1000 | 40 - 1200 | 40 - 1200 |
| | Liner pipes for concrete walls | | 40 - 1200 | 40 - 1200 |
| | Manifolds PE | | 160 - 1200 | 160 - 1600 |
| | Thread nipples plugged | 25x ^{1/2} - 40x1 ^{1/4} " | | |
| | Rotatable pipe joint | 90 - 315 | 90 - 630 | 90 - 630 |
| Flanges | | | Dimensions | |
| | PP / steel loose flanges | | 20 - 500 | |
| | PP / steel profiled loose flanges | | 50 - 1000 | |
| 600 | PP / steel blind flanges | | 20 - 400 | |
| 600 | PE blind flanges | | 90 - 800 | |
| | Full-face flanges | | 63 - 225 | |
| | Hot dip galvanized flanges | | 40 - 1600 | |

Fabrication is possible in pressure classes SDR 41/33/26/17/11/7.4 depending on type of product. Other dimensions can be supplied on request.



AQUACULTURE SIMONA 35

Range of semi-finished products PE

| Dimensions in mm, unless | otherwise stated | SIMONA® PE 100 natural | SIMONA® PE 100 black | SIMONA® PE-HD natural | SIMONA® PE-HD black | SIMONA® PE 500 | SIMONA® PE 1000 |
|--------------------------------------|-----------------------|---------------------------|-------------------------|-----------------------|------------------------|-------------------|--------------------|
| Sheets | Size thickness | | | | | | |
| | 2000 x 1000 | 6 - 40 | 1 - 50 | 1-30 | 1 - 30 | 3 - 15 | |
| | 3000 x 1500 | 6 - 30 | 2 - 40 | 2 - 30 | 2 - 30 | 4 - 12 | |
| | 4000 x 2000 | 6- 30 | 5 - 40 | 3 - 5 | 10 - 30 | | |
| • | 20000 x 1500 | | 3 - 5 [©] | | | | |
| Extruded sheets | Colours | | | | | | |
| | 2000 x 1000 | | 10 - 150 | 10 - 150 | | 8 - 120 | 8 - 120 |
| | 3000 x 1250 | | | | | 8 - 80 | 8 - 80 |
| Y | 4120 x 2010 | | 10 - 150 | 10 - 150 | | | |
| Pressed sheets | Colours | | | | | | |
| Cross-ribbed | 2000 x 1000 | | 30, 40 | | | | |
| twin-wall sheets | Colours | | | | | | |
| | 3000 x 1000 | | 54, 58 | | | | |
| Lengthways-ribbed twin-wall shets | Colours | | | | | | |
| Corner elements | Length thickness | | | | | | |
| | 1500 | | 54, 58 | | | | |
| | 2000 | | 40 | | | | |
| HKP corner | 3000 | | 54, 58 | | | | |
| elements 45° and 90° | Colours | | | | | | |

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The dimensions specified are standard dimensions. Oher sizes, thicknesses, lengths, diameters and colours available on request. $^{\circ}$ Also available as SIMONA $^{\circ}$ PE 100-SK polyester-backed; supplied on rolls

| Dimensions in mm, unless otherwise stated | | SIMONA® PE 100 natural | SIMONA® PE 100 black | SIMONA® PE-HD natural | SIMONA® PE-HD black | SIMONA® PE 500 | SIMONA® PE 1000 |
|---|---------------------------|---------------------------|-------------------------|--------------------------|------------------------|-------------------|--------------------|
| Rods | | | | _ | | | |
| | Types | 000 | 0000 | 0 | | 0 | |
| | Thickness | 3 - 5 | 3 - 7 | 3 - 4 | | 3 - 4 | |
| Welding rods | Colours | | | | | | |
| | Length diameter | | | | | | |
| | 1000 | | | 20 - 800 | 250 - 300 | 100 - 500 | 20 - 300 |
| | 2000 | | | 8 - 500 | 20 - 200 | 10 - 500 | 20 - 200 |
| Solid rods | Colours | | | | | | |
| Hollow rods | 2000 | | 110 - 810 | | | | |
| | Colours | | | | | | |
| Profiles | Length width / hight | | | | | | |
| | 5000 | | 48 - 92 / 46 - 155 | | | | |
| U-profiles | Colours | | | | | | |
| | 5000 | | 35 - 50 / 35 - 50 | | | | |
| Square pipes | Colours | | □■■ | _ | | | |

The dimensions specified are standard dimensions. Other sizes, lengths, diameters and colours available on request.



 $\bigcirc\bigcirc\bigtriangledown\bigtriangledown$: round, triangular TA 90, triangular TA 80, three-core

POLYPROPYLENE

Excellent chemical resistance



Polypropylene (PP) is the most widely used material for chemical-technical applications. Its key characteristics also include good long-term properties and a high resistance to slow crack growth.

Range of semi-finished products PP

| Dimensions in mm, unless otherwise stated | | SIMONA® PP-H AlphaPlus® | SIMONA® PP-H natural | SIMONA® PP-C | SIMONA® PPs |
|---|---------------------------|----------------------------|-------------------------|-----------------|----------------|
| Sheets | Size thickness | | | | |
| | 2000 x 1000 | 0.8 - 50 | 0.8 - 50 | | 1,5 - 30 |
| | 2440 x 1220 | | | 3 - 15 | 2 - 20 |
| | 3000 x 1500 | 1.5 - 40 | 1.5 - 30 | 3 - 30 | 2 - 20 |
| | 4000 x 2000 | 2 - 50 | 3 - 50 | | 3 - 20 |
| • | 10000 x 1200 [©] | | | | |
| | 20000 x 1500 [©] | | | | |
| Extruded sheets | Colours | | | | |
| | 2000 x 1000 | 10 - 70 [©] | 10 - 150 | 10 - 150 | 10 - 100 |
| | 4120 x 2010 | 10 - 70° | 10 - 150 | 10 - 150 | 10 - 100 |
| Pressed sheets | Colours | | | | |
| | 2000 x 1000 | | | 30, 40 | 30, 40 |
| Cross-ribbed twin-wall sheets | Colours | | | | |
| | 3000 x 1000 | 54, 58 | | | 54, 58 |
| Lengthways-ribbed twin-wall shets | Colours | | | | |
| Corner elements | Length thickness | | | | |
| | 1500 | 54, 58 | | | |
| | 2000 | | | 40 | |
| | 3000 | 54, 58 | | | |
| HKP corner elements 45° and 90° | Colours | | | | |
| | | | | | · |

The dimensions specified are standard dimensions. Oher sizes, thicknesses, lengths, diameters and colours available on request.

□ □ ■ □ : natural, white, black, grey

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 $^{^{\}odot}$ Pressed sheets made of SIMONA $^{\!\circ}$ PP-H grey are available in thicknesses from 80 to 150 mm.

[©] Supplied on rolls

| Dimensions in mm, unless otherwise stated | | SIMONA® PP-H AlphaPlus® | SIMONA® PP-H natural | SIMONA® PP-C | SIMONA® PPs |
|---|---------------------------|----------------------------|-------------------------|-----------------|----------------------|
| Rods | | | | | |
| | Types | 004000 | 000 | 0040 | 000 |
| | Thickness | 3 - 7 | 3 - 5 | 3 - 7 | 3 - 6 |
| Welding rods | Colours | | | | |
| | Length diameter | | | | |
| | 1000 | 100 - 800 | 140 - 800 | | |
| | 2000 | 8 - 500 | 8 - 500 | | |
| Solid rods | Colours | | | | |
| | 2000 | 360 - 810 | | | |
| Hollow rods | Colours | | | | |
| Profiles | Length width / hight | | | | |
| | 5000 | 48 - 92 / 46 - 155 | | | |
| U-profiles | Colours | | | | |
| | 5000 | 35 - 50 / 35 - 50 | | | 35 - 50 / 35 - 50 |
| Square pipes | Colours | | | | |

 $The \ dimensions \ specified \ are \ standard \ dimensions. \ Other \ sizes, \ lengths, \ diameters \ and \ colours \ available \ on \ request.$



: natural, white, grey



FISH TRANSPORT SYSTEM

OUTLET FUNNEL FOR FISH



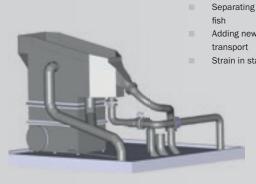
- Manufactured in GRP or PE 100
- From 110 mm to 500 mm Inlet 500 - 1000 mm

SEAMLESS BENDS R=2,5 xD



Made of bent pipes Produced in black PE 100

WATER SEPARATOR



- PE 100 black
- Separating RAS water from
- Adding new water for further
 - Strain in stainless steel



DRAINAGE BOX



- Manufactured in GRP or PE 100
 - Stainless steel mesh (wedgewire)
- Mesh is compliant with NS 9416

T-PIPES



- Smooth transition
- For fish transport
- 250 500 mm
- Manufactured in GRP

CROSS PIPES



- Smooth transition
- For fish transport
- 250 500 mm
- Manufactured in GRP

AQUACULTURE PRODUCTS

CIP TANK



- 1600 litres
- Tank in polyethylene
- Mounted on PE 100 pallet
- Access from all sides by lift truck
- Large lid makes it easy to add cleaning products
- 2 x 6 kW heating elements
- Temperature 30-50 dgrC

BELLMOUTH



- Made from PE 100 or NOR-Selast(R)
- DN350 DN500
- Durable with long lifespan
- No sharp edges
- Minimum friction loss
- Single piece, all made from the same material

ROTATABLE PIPE JOINT



- PE 100
- PP flange
- EPDM gasket
- Can be supplied with different types of bolts

THREAD NIPPLES



Internal:

- Plugged
- PE 100
- Machined
- Stainless stel ring

External:

- Plugged
- PE 100
- Machined

MANIFOLDS



- PE 100
- 110 1600 mm
- SDR 33-26-17

SLUDGE PUMP STATION



Collection of sludge from drum filters and other contaminated water. Sludge is pumped on to a central sludge station for further processing.

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PIPELINE STRAINER



- PE 100 SDR 17
- DN80 DN350
- Fast-close system on lid
- Mesh with holes from 1.5 to 50 mm
- Bottom flushing and drainage
- Reduction factor 0.5
- Max pressure 5 bar

MINERALFILTER



PE 100

Locking clamps in stainless steel

FLOOR DRAIN



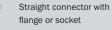
- Manufactures in PE 100
- Raised grate to prevent fish from clogging
- Flat grading in PE and stainless steel is available

LEVEL PIPE



- Produced in PE 100
- Inner pipe made from PVC on standard models
- Smooth side inlet
- Smooth bottom outlet

INLET PIPES

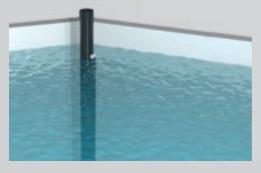


- PE 100 black
- SDR 26 outer pipe

SHEETS

- Sheets for smaller fish tanksSheets for lining in concrete
- PEH 100 or PP-C

tanks



FISH TANK CLEANER



GRP or PE 100 drain cover

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.....

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- Stainless steel mesh
- Mesh is compliant with
- Welded to tank's central pipe

VACUUM FUNNEL



- PE 100 black/white
- With or without cover
- Can be used with gravity fall pipes

FISH BARRIER



- Manufactured in PE 100
- Grate in stainles steel
- Made according to NS 9416

SIMONA AQUACULTURE 44

PRODUCING SERIES AS LOW AS ONE UNIT

Since the piping systems we deliver are specially adapted to each individual project, serial production of parts is only possible to a limited extent. In other words, we produce series as low as one unit.

We have our own production facility with highly sophisticated machinery and a certified staff. We produce special parts for our custom orders and for our own projects.

Our machinery includes special equipment for cutting and welding polyethylene pipe parts with diameters ranging from DA 20 to 1600 mm.

- Custom orders and own projects
- Manifolds
- Pipe spools
- Series as low as one unit
- Exactly to specifications
- Under license for other suppliers
- Fast delivery
- Highest technical quality of work and materials
- Thorough documentation and quality assurance
- Advice and follow-up

More information on our special products



GLOBAL THERMOPLASTIC SOLUTIONS

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