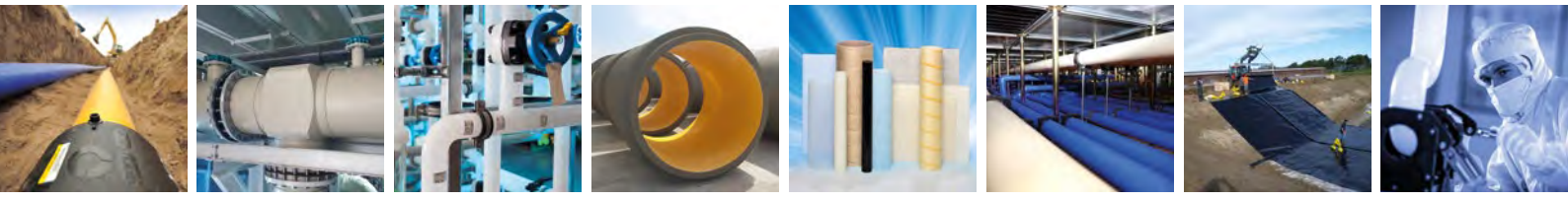


# The Plastics Experts.





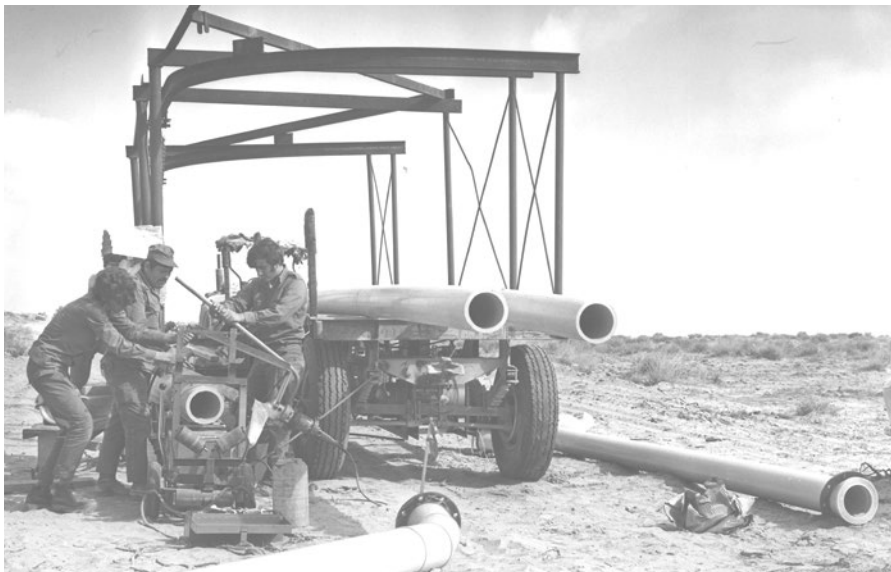


# AGRU

## Corporate mission

### VISION

AGRU is established as the world's most important single-source supplier for high-quality products made from engineering plastics. Conservation of resources and respect for the environment occupy the foreground in all our business endeavours. Customers all over the world trust the plastics expertise the company has amassed in the course of a lifetime.



### SUCCESSFUL SINCE 1948

The AGRU success story that has lasted for more than seven decades. Founded back in 1948 by Alois Gruber senior, nowadays the company is one of the world's most important single-source suppliers for piping systems, semi-finished products, concrete protection liners and lining systems made from engineering plastics.

Our ability to supply everything from a single source sets us apart. We use only top-grade thermoplastic polymers as our raw materials. When it comes to application-technical consulting, we are your best partner in the field.



## MISSION

AGRU supplies the plastics technology that makes customers from all over the world successful in their widely differing industries. As a reliable, experienced supplier we offer everything from semi-finished products through to technologically optimised injection mouldings, all from a single source. We handle the challenges from thousands of projects and evolve our products and services on a rolling basis. Uncompromising quality, outstanding customer benefit and high operational dependability are our maxims. We implement custom solutions and application-oriented new developments with the highest flexibility - with precision and economically. Our dedicated employees with plastics expertise make AGRU successful as a global player.



## THE PLASTICS EXPERTS.

With its competence in producing engineering plastics components and developing tailored solutions, AGRU is present in virtually every sector of industry. The possibilities opened up by our products are manifold, just as the requirements of our customers are diverse.

The thermoplastics worked by AGRU are extremely high-quality engineering polymers used in virtually all branches of industry where durability, operational dependability, cost certainty and versatility are essential.



# AGRU

## at a glance



1948	FOUNDING YEAR
6	CONTINENTS
100	COUNTRIES
150	DISTRIBUTION SITES
1200	EMPLOYEES
95 %	EXPORT RATE
100 %	CUSTOMER VALUE



## Industries

- ⦿ WATER / GAS INFRASTRUCTURE
- ⦿ ENERGY SECTOR
- ⦿ CHEMICAL / HEAVY INDUSTRIES
- ⦿ SEMICONDUCTOR / LIFE-SCIENCES
- ⦿ TANK AND APPARATUS BUILDING
- ⦿ NAVAL AND AVIATION INDUSTRIES
- ⦿ CIVIL ENGINEERING / MINING
- ⦿ BUILDING CONSTRUCTION





# AGRU HQ, Bad Hall, Austria





PLANTS 2-5



PLANT 1



# AGRU

## customer orientation

“HIGH PRODUCT QUALITY MAKES A PIPING SYSTEM RELIABLE – AN ISSUE ON WHICH AGRU IS RIGOROUSLY UNCOMPROMISING.”



### AGRU = ALOIS GRUBER

AGRU is an acronym derived from the name of Alois Gruber: Alois Gruber and son Alois Gruber jun. are the majority owners and CEO's of AGRU. Clear decisions, integrity and continuity characterise their company. AGRU customers appreciate the extraordinary flexibility and short reaction times made possible by this flat hierarchy. Just as they appreciate the reliability of the products and the dependability of every agreement we make. As a real family-owned company, AGRU is very much aware of its responsibility to customers, employees and the environment.

### SATISFYING REQUIREMENTS WITH PRECISION

AGRU has built a reputation for satisfying its customers' wishes efficiently, cost-effectively and with superlative flexibility. Customer-oriented technical solutions, the ability to think outside the box and decades of hands-on experience are what it takes.







# Growth through progress



1948  
FOUNDATION OF AGRU



1961  
PE / PP PROCESSING



1966  
INJECTION MOULDED FITTINGS



1987  
BRANCHES IN ASIA & USA



2010  
XXL PIPES OD 2500 MM



2016  
CLEANROOM PLANT



2017  
XXL PIPE PRODUCTION FACILITY



2018  
NEW APPRENTICE SHOP



2019  
EXPANSION CLEANROOM PLANT





# Pathbreaking in plastics technology

## QUALITY

Operational reliability, on-time delivery and maximum customer benefit are our maxims. Over more than 50 years, the plastics experts have accumulated a wealth of expertise unique in the industry. This lifetime of experience flows into application-oriented innovation, high-tech production and outstanding service and logistics performance.

## RELIABILITY

Different materials, technologies and products plus a worldwide network of partners all contribute to making AGRU a single-source supplier. For large-scale projects and special solutions in particular, AGRU is able to offer its customers a one-stop shop.







# AGRU a trusted partner



VAST STORAGE  
AREAS



GLOBAL LOGISTIC  
OPERATION





# AGRU production



100.000 TONNES/YEAR



115.000 M<sup>2</sup> FLOOR SPACE



PLANTS IN 5 COUNTRIES





## TECHNOLOGY LEADERSHIP

Producing at the cutting edge of technology, improving processes and optimising results are part and parcel of AGRU's guarantee of competitiveness. Day in, day out, we demonstrate our cost and quality leadership in our plants all over the globe. The technological edge means that AGRU solutions are consistently among the best in their field.

## MANUFACTURING EXPERTISE

Quality and cost leadership are another two of our maxims. So our customers profit from state-of-the-art technologies at an unbeatable price-performance ratio. One major plus is our technological diversity: injection moulding is one of our core competences and another is the extrusion of thermoplastics. And working with fibre composites and fluoroplastics is an established tradition at AGRU.

## PRODUCTIVITY

Productivity means taking know-how, automation technology, meticulous craftsmanship, process reliability, lean production and energy efficiency and combining them to optimum effect.





# Top-grade fittings

## MAXIMUM CUSTOMER BENEFIT

AGRU fittings for medium-retaining pipes are hallmarked by uncompromising precision, robustness and durability. In this respect, functionality and cost-effectiveness are two sides of the same coin. As an industry leader, our company produces injection-moulded fittings of enormous design complexity, using the very latest technologies.

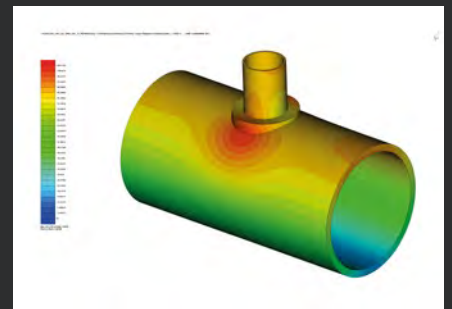


PIPING SYSTEMS FROM AGRU DELIVER ON EVERYTHING THE MANUFACTURER PROMISES.



## OPERATIONAL SAFETY

In exhaustive cycles that include abrasion tests, rigorous leak tests and bursting-pressure tests, our products are tested under conditions vastly harsher than those encountered in real-world operation. These huge safety margins allow AGRU users to rely one hundred percent on the quality, operational dependability, reliability and durability of our products.

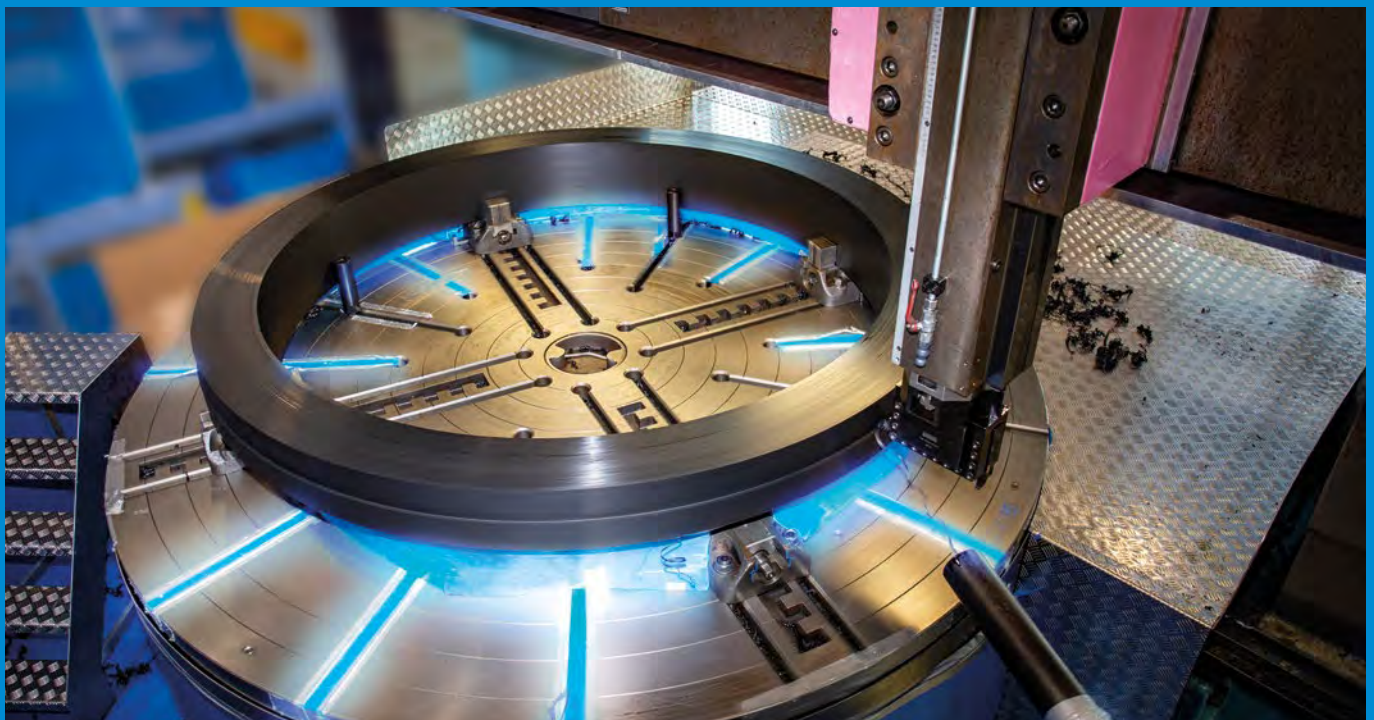




# Resource-saving production

## SUSTAINABILITY

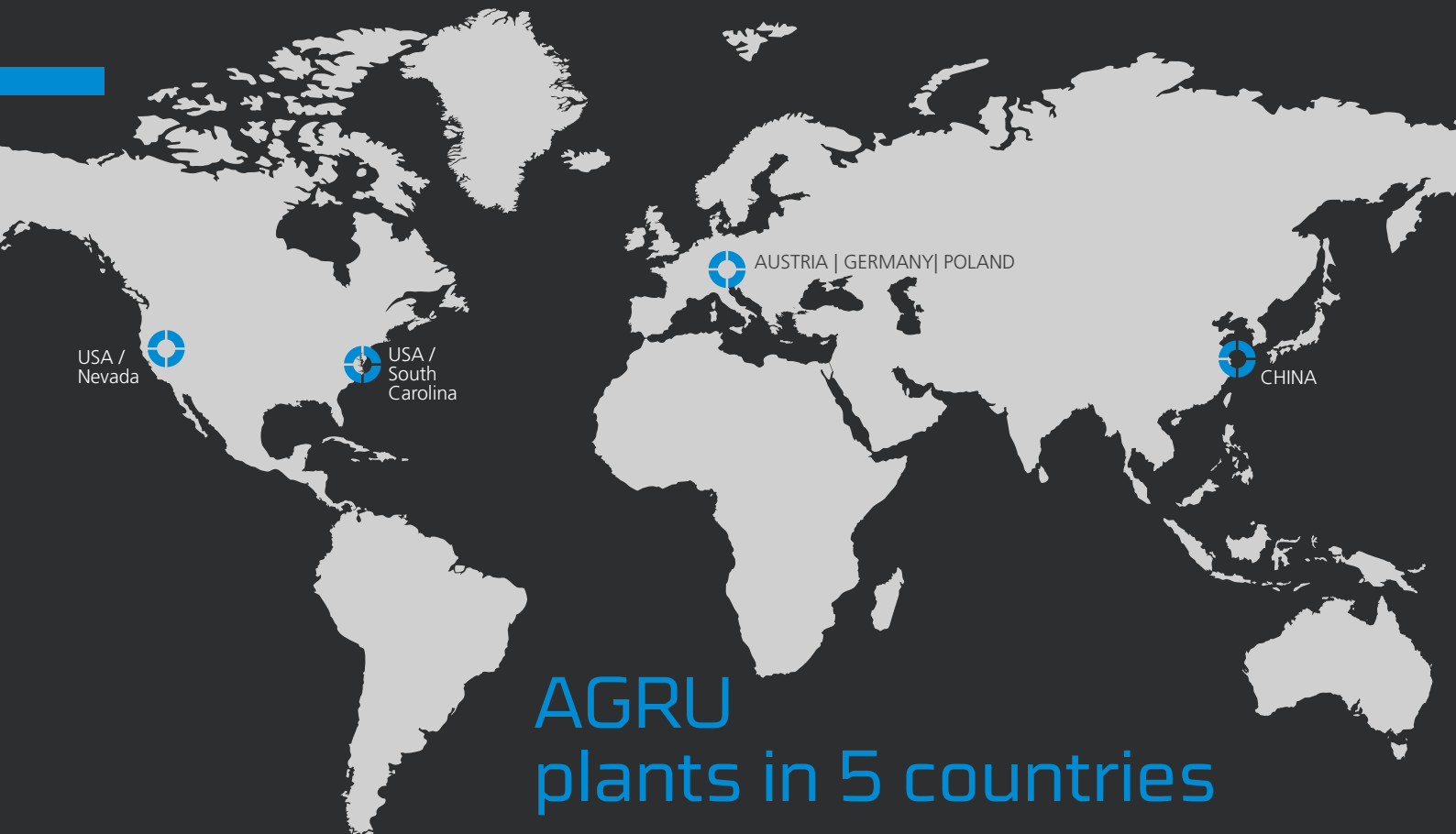
Conserving resources in production is second nature to AGRU. At AGRU, environmental protection starts in the product development phase. Flow simulations and materials analyses are the basis for the design of fittings that save energy in operation and achieve the same rigidity with less polymer in the mould. Procurement processes that set store by high quality, resource-conserving manufacturing processes and extremely long lifespans contribute to sustainability in all AGRU products.



## INTERNAL CIRCULAR ECONOMY

Process waste arisings are recycled in production, adding to sustainability. Residual amounts of polymers arising during the production process are sorted into their different fractions. So they can be returned to the materials cycle and put to good use.





USA / Nevada

USA / South Carolina

AUSTRIA | GERMANY | POLAND

CHINA

# AGRU plants in 5 countries

**AGRU KUNSTSTOFFTECHNIK  
AUSTRIA**



**AGRU OBERFLÄCHENTECHNIK  
AUSTRIA**



**AGRU-FRANK  
GERMANY**



**TWS  
POLAND**



**AGRU AMERICA  
FERNLEY, NV/USA**



**AGRU AMERICA  
GEORGETOWN, SC/USA**



**AGRU AMERICA  
ANDREWS, SC/USA**



**AGRU AMERICA  
CHARLESTON, SC/USA**



**TAICANG AGRU PLASTICS  
CHINA**







## The Plastics Experts.

### APPLICATION-TECHNICAL CONSULTATION

Very often, the material used turns out to be definitive in terms of the ultimate profitability of an engineering solution. Only if the raw material is perfectly matched to the real-world conditions of use can physical toughness and resistance to chemicals and temperature effects be fully to specification. Application-specific material selection is one of AGRU's core competences. As a professional partner for everything associated with plastics, AGRU can point out the most economical solution for any problem, no matter how big the challenge.



### PRECISION WELDING – FOR DURABLE JOINS

With a global reputation as an innovative plastics expert and reliable business partner, AGRU offers comprehensive know-how plus many years' experience in material selection and installation of its products. In particular in welding technology AGRU was and still is a pioneer who sets new benchmarks with ground-breaking innovations.





## Research & development

NUMEROUS WORLDWIDE PATENTS AND CONTINUOUS APPLICATIONS UNDERLINE THE INNOVATIVE POWER OF THE GLOBAL AGRU GROUP.

### WE CLAIM TO BE THE FIRST

Europe's first to produce fittings in injection moulds; the world's first to calender liners many meters wide. Once again the company has set new standards by building a clean-room plant for ultra-pure media piping systems.



1966: INJECTION MOULDING



1986: 7 M WIDE LINERS



2019: EXPANSION PLANT 5



# Innovation from the applications specialist



## INNOVATION IS THE KEY TO SUCCESS

AGRU's plastics engineers are focused on the future. Only those who today are dealing with the customer- and target-group-specific requirements of tomorrow will be successful in the future.

GROUND-BREAKING INNOVATIONS HAVE BEEN A HALLMARK OF AGRU SINCE ITS EARLIEST DAYS.

## SERVICES

AGRU's strengths extend far beyond the processing of plastics as such. Depending on customer requirements, the company offers services including:

Applications-engineering consulting in all build phases, selection of materials, training in welding processes, field supervisors, rental and sale of welding machines, day-definite delivery and much more.







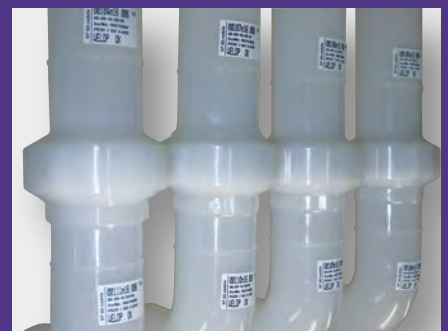
## Plant 5 - a new industrial standard for cleanroom production



7.739 M<sup>2</sup> FLOOR SPACE



CLEANROOM CLASS 5



PURAD PIPING SYSTEM



# One stop shopping



## AGRULINE

### PIPING SYSTEMS

PE 100/PE 100-RC piping systems for gas and potable water distribution as well as sewage water disposal. Trenchless and sandbed-free installation possible. Available in dimensions up to OD 3260 mm.



## INDUSTRIE

### PIPING SYSTEMS

Piping systems and double containment piping systems made of PP, HDPE-el, PPs, PPs-el, PVDF and ECTFE for industrial applications such as transport of aggressive media and contaminated sewage water.



## PURAD

### PIPING SYSTEMS

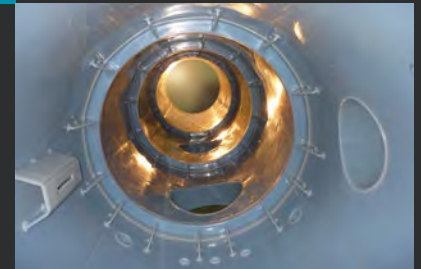
PVDF-UHP, PP-Pure, Polypure and ECTFE piping systems for the distribution of ultra-pure-water in semiconductor, pharmaceutical and food industry.



## CONCRETE PROTECTION

### PROTECTIVE LINERS

Concrete protective liners and assembly profiles made of PE, PP, PVDF and ECTFE for the protection of your concrete structures from wear and chemical corrosion.



## SEMI-FINISHED PRODUCTS

### SHEETS, BARS, BLOCKS, RODS ...

Sheets, bars, blocks, liner pipes welding rods and fittings made of PP, PE, PPs, PPs-el, HDPE, HDPE-el, PVDF, ECTFE, FEP and PFA for the manufacturing of tanks and for use in apparatus engineering.



## AGRUAIR

### PIPING SYSTEMS

AGRUAIR is a pressurized air system made of PE, that withstands loads up to 16 bar and which is available in outer diameters between 20 and 110 mm.



## LINING SYSTEMS

### GEOMEMBRANES

Geomembranes made of HDPE, VLDPE, LLDPE and FPP as well as drainage systems made of PE and PP for the use in landfills, tunnels, ponds, hydraulic engineering.



## WELDING

### WELDING SYSTEMS

Welding machines in various dimensions for professional infrared-, butt- and induction welding.



# AGRULINE

THE USER-FRIENDLY  
PE 100-RC PIPING SYSTEM

## ONE STOP SHOPPING

Pipes and fittings from one factory  
for maximum accuracy of fit

## MAINTENANCE FREE PIPEWORK

Welded joints and PE 100-RC ensure  
high operational reliability

## HIGH ECONOMIC EFFICIENCY

Simple assembly, high quality and  
long service lives

## CERTIFIED MATERIALS

Raw materials in accordance to  
PE 100+ Association guidelines

## MULTIFUNCTIONAL SYSTEM

For the distribution of gas and potable  
water and the disposal of sewage



PIPES AND LARGE DIAMETER PIPES



FITTINGS



# INDUSTRIAL

## PIPING SYSTEMS FOR INDUSTRIAL APPLICATIONS

### FAST & EASY INSTALLATION

Pipes, fittings and customized solutions perfectly harmonized

### MAINTENANCE FREE PIPEWORK

Welded joints and materials for high operational reliability

### DOUBLE OPERATIONAL SAFETY

The compact Poly-Flo double containment piping system is highly reliable

### HIGH MEDIA RESISTANCE

Pipes and fittings made from PE 100-RC/PP/PVDF/ECTFE

### EXPERTISE IN PLASTICS

Decades of experience in plastics processing, research & development





# PURAD

## HIGH PURITY PIPING SYSTEMS

### HIGHEST PRODUCT PURITY

Production of all system components  
in ISO class 5 cleanrooms

### ONE STOP SHOPPING

Pipes and fittings from one factory  
for highest performance

### UNIVERSAL APPLICABILITY

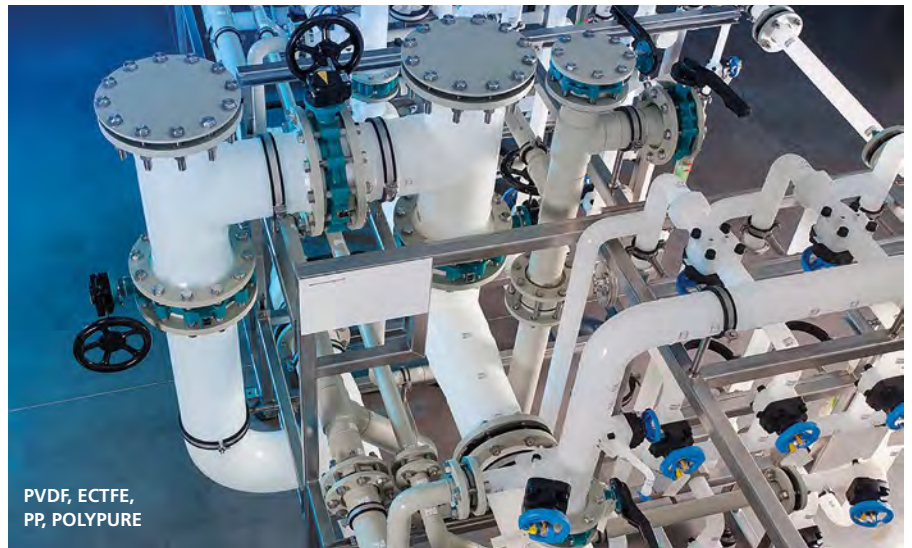
Perfectly adjusted system components  
in PVDF UHP, ECTFE, PP Pure, PP nature

### LONG-TERM RELIABILITY

Exclusive processing of selected  
premium thermoplastics

### EXPERTISE IN PLASTICS

Decades of experience in plastics  
processing, research & development



PVDF, ECTFE,  
PP, POLYPURE



CLASS 5  
CLEANROOMS





# CONCRETE PROTECTION

LONGER SERVICE LIFE FOR CONCRETE BUILDINGS

### FIRMLY SEALED SURFACES

Corrosion protection and sealing made of chemically stable plastics

### FOR EVERY REQUIREMENT

Wide range of materials available (PE, PP, PVDF, ECTFE)

### HIGH ECONOMIC EFFICIENCY

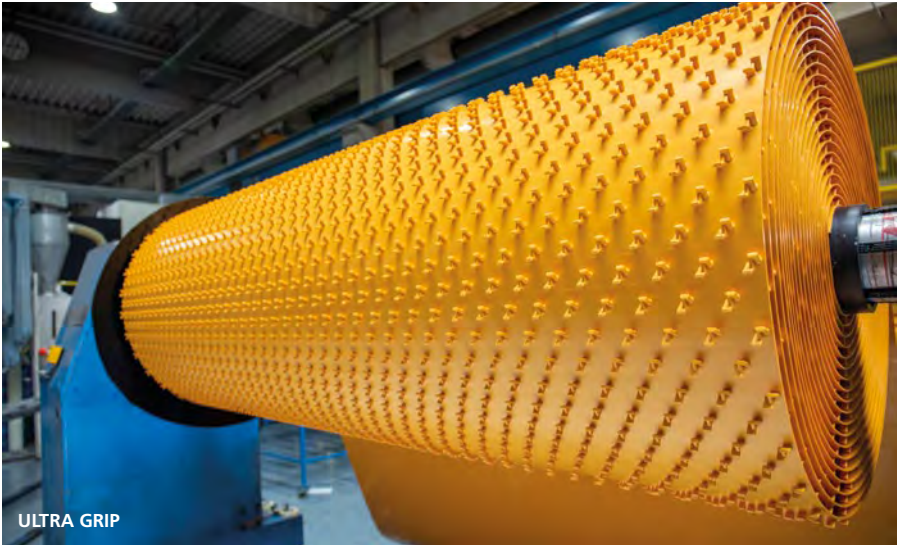
Simple assembly, high quality and long service life

### HIGH OPERATING RELIABILITY

Best weldability ensures maximum tightness

### EXPERTISE IN PLASTICS

Decades of experience in plastics processing, research & development



ULTRA GRIP



HYDRO+ / HYDROCLICK



# SEMI-FINISHED PRODUCTS

MADE FROM PE, PP, PVDF, ECTFE, FEP, PFA

## HIGHEST MEDIA RESISTANCE

A stable polymer is for each chemical application available

## LESS OPERATING COSTS

Due to excellent material properties and extended maintenance intervals

## ONE STOP SHOPPING

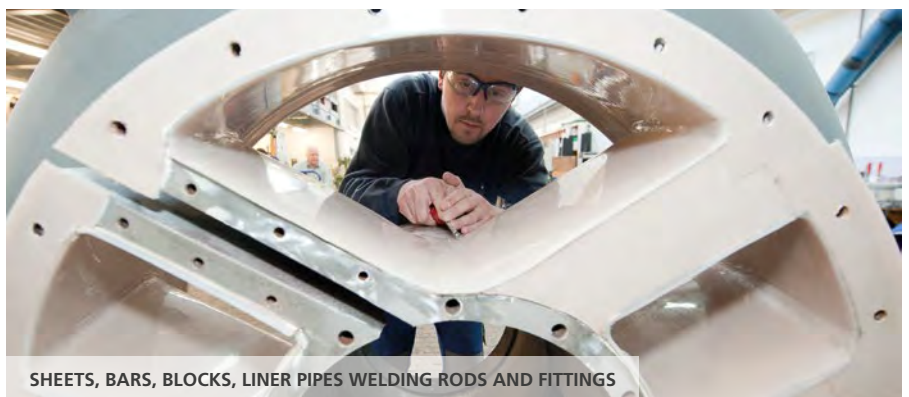
Comprehensive semi-finished product portfolio and extensive stock-keeping

## CONSISTENTLY HIGH QUALITY

Raw material specifications, cutting-edge production & quality assurance

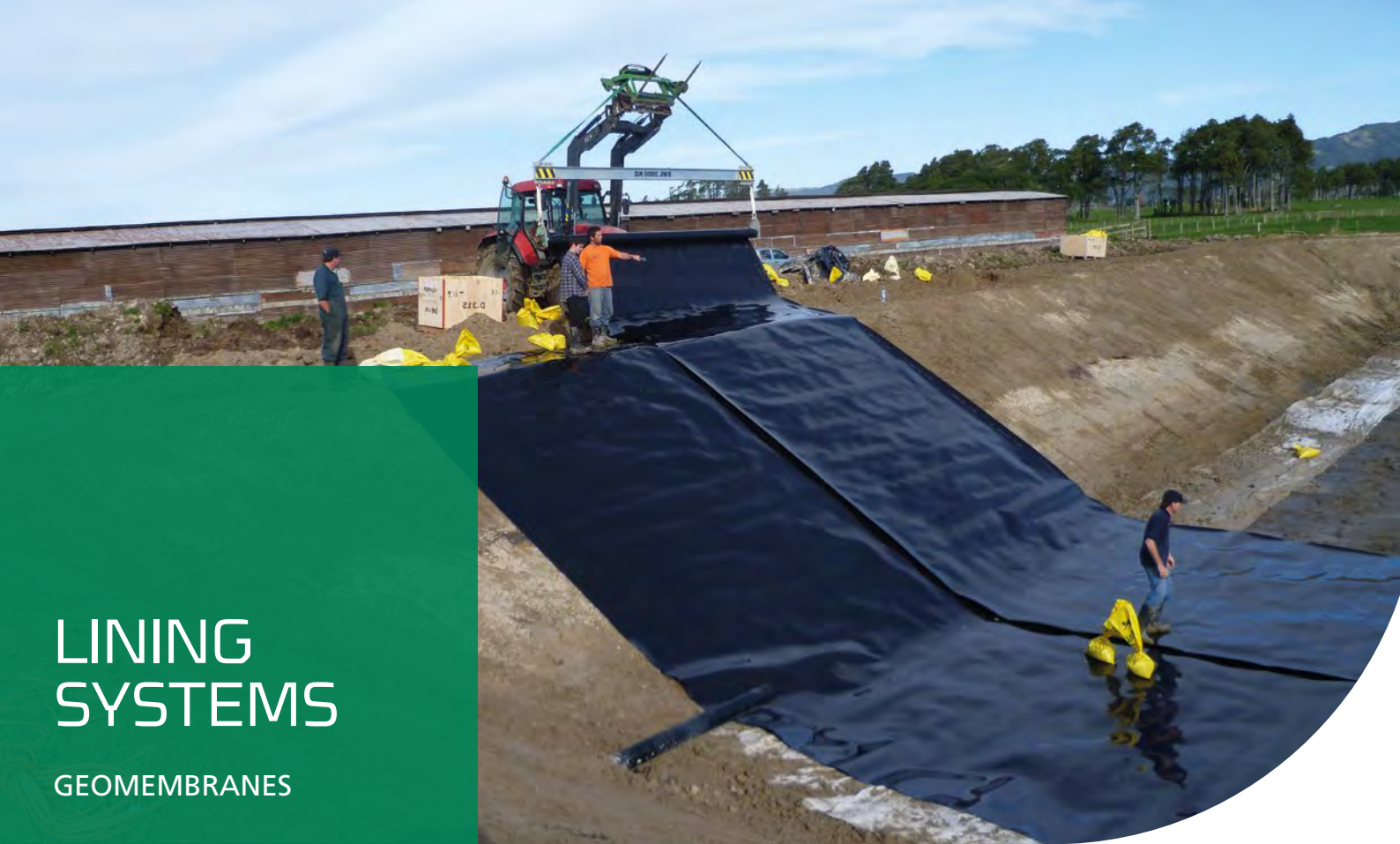
## FABRIC BACKINGS

Chemically resistant fabrics made of various materials



SHEETS, BARS, BLOCKS, LINER PIPES WELDING RODS AND FITTINGS





# LINING SYSTEMS

## GEOMEMBRANES

### CORROSION PROTECTION

Tunnel liners protect the inner concrete shell from aggressive mountain water

### FOR SOIL & GROUNDWATER

For mining, water and landfiling, liquid manure & retention basins

### ONE STOP SHOPPING

Lining systems, water stop profiles, perforated pipes, discs available

### PROVEN QUALITY PRODUCTS

AGRU Lining systems are in compliance with many international standards

### HIGH SUPPLY CAPABILITY

Global distribution network, high capacities



PERFORATED PIPES AND ACCESSORIES



GEOMEMBRANES



TUNNEL LINERS



# WELDING

STATE OF THE ART WELDING  
TECHNOLOGY FROM AGRU

## BEADLESS WELDING

Fully automated welding process  
and documentation

## CONTACTLESS WELDING

Infrared technology for highest purity  
with and without bead

## BUTT WELDING

For pipe diameters up to OD 3,500 mm

## INDUCTION WELDING

For concrete protective liners,  
geomembranes and piping systems





# CUSTOM PARTS

MACHINED FOR A PERFECT FIT

## TAILOR-MADE SOLUTIONS

Tailored entirely to the specific requirements of your business

## ONE STOP SHOPPING

Application consulting, specific design and production

## HIGH ECONOMICAL EFFICIENCY

Cost-effective fabrication of technically sophisticated components

## VARIETY OF MATERIALS

Individual choice of material according to your needs

## HIGH PRODUCTION QUALITY

Semi-finished products and finished parts from the same plant



CUSTOMIZED FITTINGS



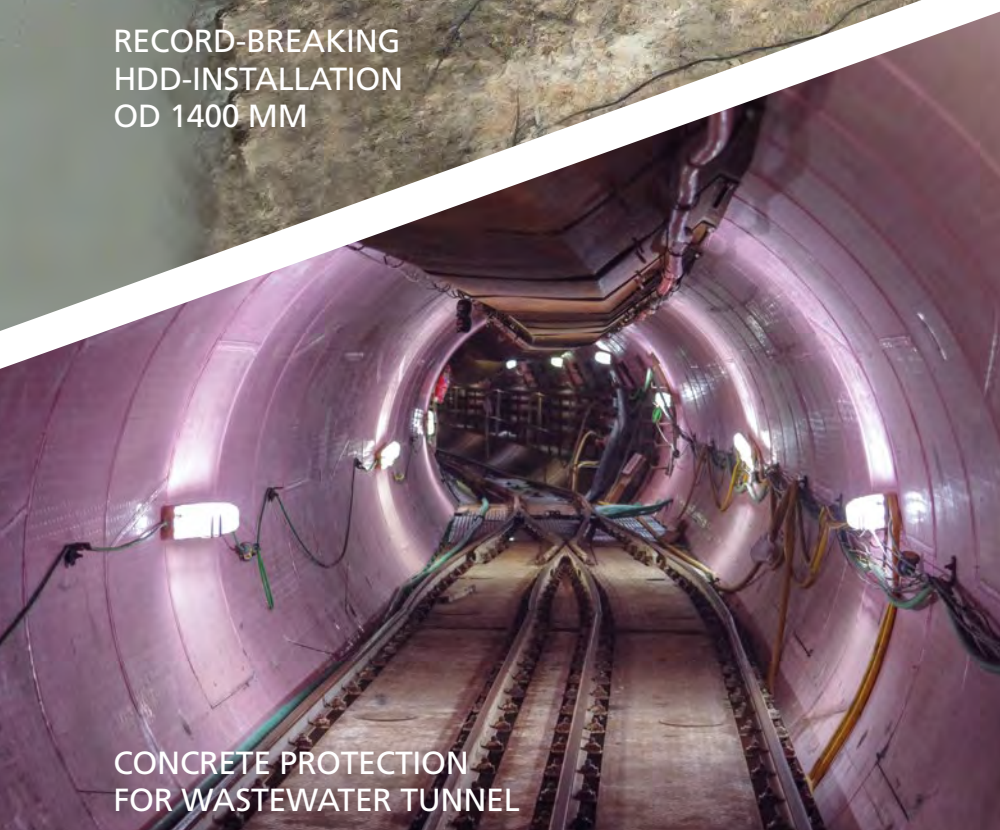
XXL FITTINGS



# References worldwide



RECORD-BREAKING  
HDD-INSTALLATION  
OD 1400 MM



CONCRETE PROTECTION  
FOR WASTEWATER TUNNEL



DESALINATION



A diver in a yellow and blue suit is working on large, dark pipes underwater. The diver is holding a tool and appears to be inspecting or adjusting a large bolt on the pipe. The water is clear and blue.

# References worldwide

SEA INSTALLATION  
XXL PIPES

An aerial view of two large, dark pipes floating in the sea. The pipes are parallel to each other and have yellow caps on their ends. A small boat is visible in the distance on the water.

XXL PIPES FOR  
SEA WATER INTAKE





PIPING SYSTEM  
FOR THE WORLD'S  
LARGEST INDOOR  
WATERFALL



# References worldwide



CONCRETE PROTECTION  
FOR SEWAGE PLANT





SEAWATER INTAKE PIPELINE  
FOR DESALINATION PLANT



GEOMEMBRANES  
FOR STORAGE POND



# References worldwide



ULTRA PURE  
WATER PLANT



HYDRO<sup>CLICK</sup> LINING FOR  
POTABLE WATER TANKS





XXL PIPES FOR  
COOLING WATER INTAKE



ONSHORE INSTALLATION  
XXL PIPE





0220

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