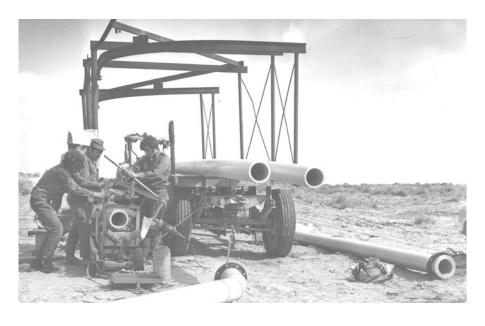




# AGRU Corporate mission



#### **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







## AGRU customer orientation

"HIGH PRODUCT QUALITY MAKES A PIPING SYSTEM RELIABLE – AN ISSUE ON WHICH AGRU IS RIGOROUSLY UNCOM-PROMISING."

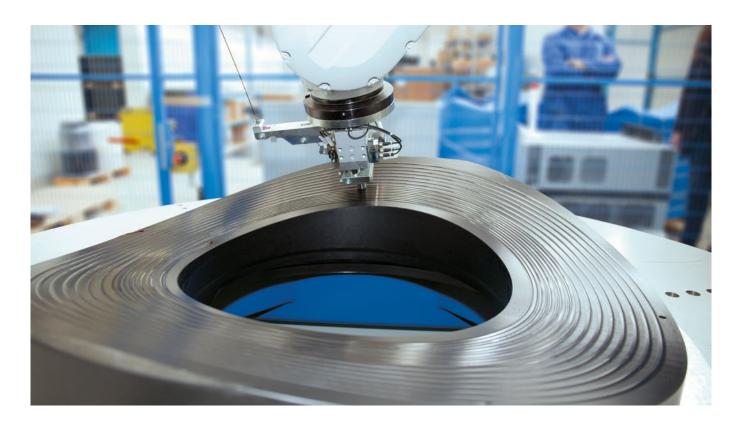


#### **AGRU = A**LOIS **GRU**BER

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

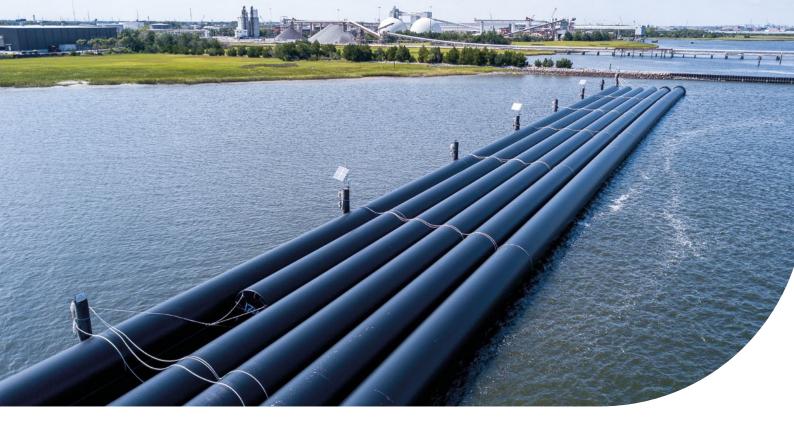
#### **QUALITY**

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



GLOBAL LOGISTIC OPERATION







# AGRU production

100.000 TONNES/YEAR



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



**PLANTS IN 5 COUNTRIES** 



#### **TECHNOLOGY LEADERSHIP**

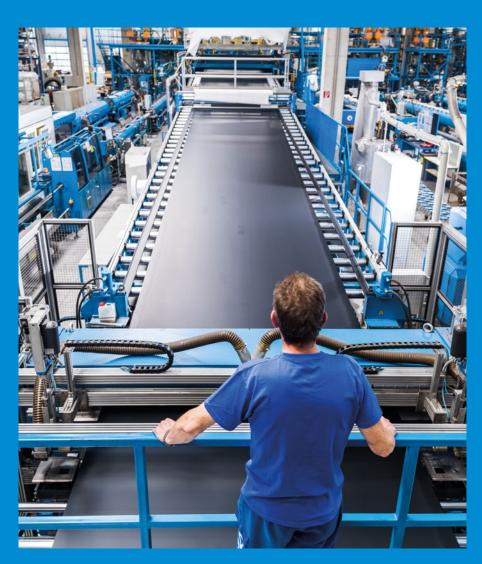
Producing at the cutting edge of technology, improving processes and optimising results are part and parcel of AGRU's guarantee of competitiveness. Day in, day out, we demonstrate our cost and quality leadership in our plants all over the globe. The technological edge means that AGRU solutions are consistently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

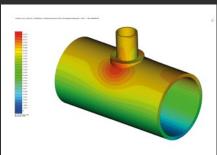


## PIPING SYSTEMS FROM AGRU DELIVER ON EVERYTHING THE MANUFACTURER PROMISES.



#### **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.



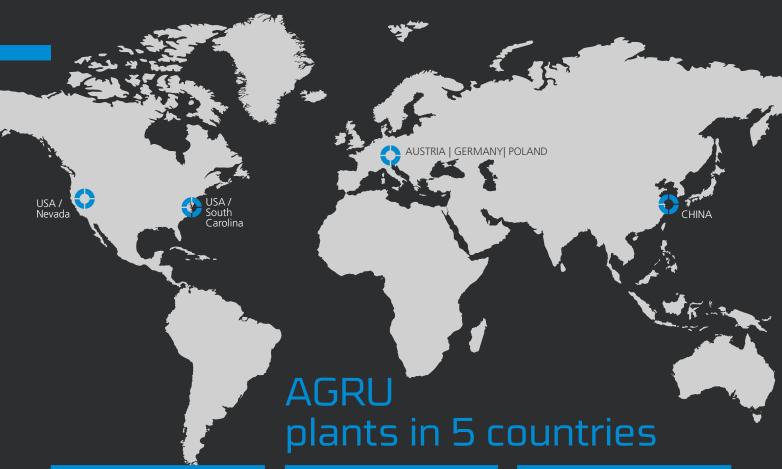


#### **INTERNAL CIRCULAR ECONOMY**

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.









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.



#### **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 news benchmarks with ground-breaking innovations.

#### **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.





## Research & development

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



1966: INJECTION MOULDING



**1986: 7 M WIDE LINERS** 

#### 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.



**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** 



#### **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.

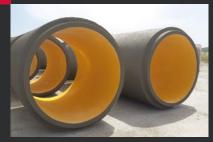




#### **PURAD**

#### PIPING SYSTEMS

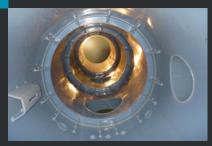
PVDF-UHP, PP-Pure, Polypure and EC-TFE piping systems for the distribution of ultra-pure-water in semiconductor, pharmaceutical and food industry.



#### **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, VLD-PE, 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.





#### **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







#### 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











#### 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







#### 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









#### **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, cuttingedge production & quality assurance

#### **FABRIC BACKINGS**

Chemically resistant fabrics made of various materials







#### CORROSION PROTECTION

Tunnel liners protect the inner concrete shell from aggressive mountain water

#### FOR SOIL & GROUNDWATER

For mining, water and landfilling, 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









### 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









#### **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 OUALITY

Semi-finished products and finished parts from the same plant



























