



The Plastics Experts.

AGRU HYDRO^{CLICK}

For Secure and Rapid Lining
of Potable Water Tanks



HYDRO^{CLICK}

The HYDRO^{CLICK} system has been developed in cooperation with the Swiss company ETERTUB AG. This company has specialised in potable water applications from the tapping of springs to water storage for decades. The HYDRO^{CLICK} design provides a fast and safe installation for both, new constructions and renovations. The system consists of a sheet with click and distance studs on one side and the click profile. AGRU extrudes this sheet in one process by calendaring technology. The material polyethylene is perfectly suited for this application due to the need for purity, mechanical strength and long life expectancy.

The Plastics Experts

Founded in 1948 by Alois Gruber Sr., the company is now one of the world's leading providers of piping systems, semi-finished products, concrete protective liners, and lining systems made of plastics. AGRU Kunststofftechnik GmbH is a one-stop shop for high-quality thermoplastic products. AGRU Kunststofftechnik GmbH is the best contact for thermoplastic solutions in material selection and installation.

Quality

Potable water is one of our world's necessities. The need for a good potable water supply is one of our biggest challenges. Providing sufficient potable water is a key issue of our times, careful handling of our water reserves is a priority. For decades AGRU has manufactured and supplied high-grade thermoplastic solutions for the transport and storage of valuable water resources.



AGRU Kunststofftechnik GmbH operates a quality and environmental management system in accordance with ON EN ISO 9001:2015 and ON EN ISO 14001:2015 and has introduced an occupational health and safety management system in accordance with ON EN ISO 45001:2018.

HYDRO^{CLICK} System - for the Secure and Rapid Lining of Potable Water Tanks

The HYDRO^{CLICK} system protects the concrete structure from carbonation and corrosion. Thanks to the tightly welded thermoplastic lining, the drinking water is optimally protected against contamination and infiltration. Thus, the HYDRO^{CLICK} system is ideally suited for the refurbishment of aging concrete drinking water tanks.

HYGIENICALLY SEALED SURFACES

free from health-hazardous additives

Protect the valuable drinking water against

- infiltration of liquids
- loss through cracks in the concrete structure
- bacteria or other contaminants

DURABLE PROTECTION AGAINST CONCRETE CORROSION

by welding the sheet joints

Excellent product properties allow for

- safe and durable bridging of crack sizes defined by AGRU in the concrete structure
- ventilation of the system between the concrete structure and HYDRO^{CLICK} lining
- effective protection against concrete corrosion

LONG-LASTING, ROBUST TANK LINING

specified for drinking water storage

Particularly economical due to

- simple installation using the click system
- low maintenance requirements after installation
- efficient cleaning with high-pressure cleaners

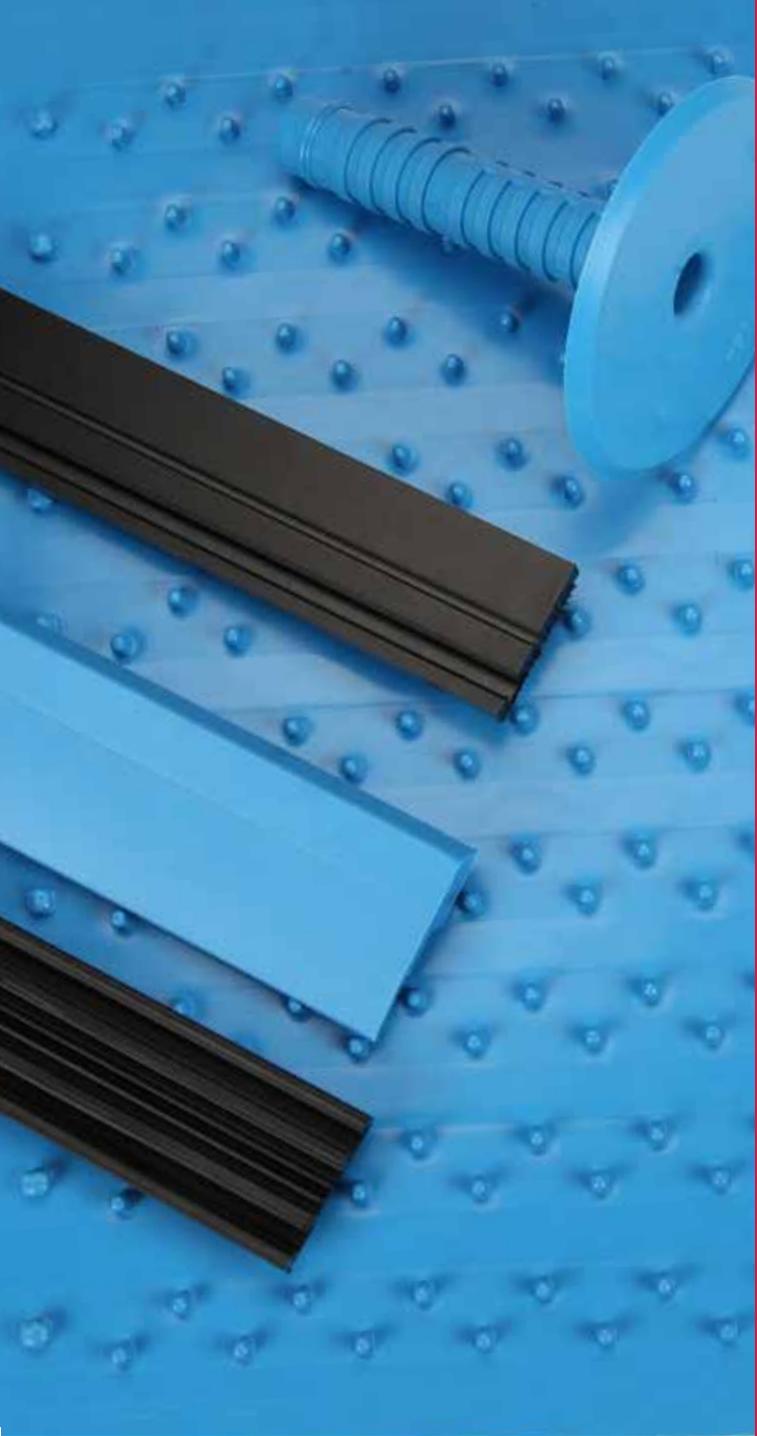
LEAKAGE MONITORING SYSTEM

for monitoring of the system's tightness

Checking the tightness of the system by

- spark testing after welding the system
- leakage monitoring using a drainage pipe at the lowest point
- regular inspection of weld seams during maintenance cleaning





The HYDROCLICK System

THE SYSTEM COMPONENTS COMPRISE

- **Click profile** made of PE 100-RC with an electrically conductive layer for spark testing the welding seam tightness.
- **Hydroclick-sheet** made of PE 80 blue with spacer studs and click studs, ideal for covering columns, curves, and bulges due to its flexibility
- **Protective film** to protect the lining from contamination during installation
- **End profile** for a clean system finish at the wall
- **Concrete anchors** for tight mechanical connections, such as ladders, piping systems, etc., in the tank.

SYSTEM ADVANTAGES

Drinking water approvals in various countries

- Short installation times
- Clean and secure installation
- Pre-fabrication of structural components possible
- Hermetically sealed connection in the weld area
- Low maintenance effort
- Inspection-friendly bright surface
- Good resistance to chlorination (up to 3 mg/l)



Installation

STEP 1:

The click profiles are mechanically fixed to the concrete structure. This is done without preparation of the existing tank.

STEP 2:

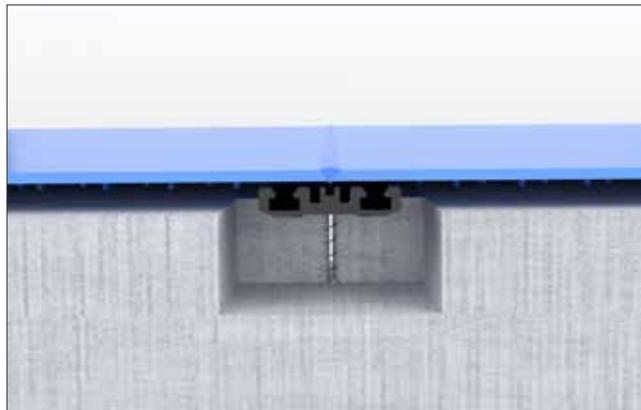
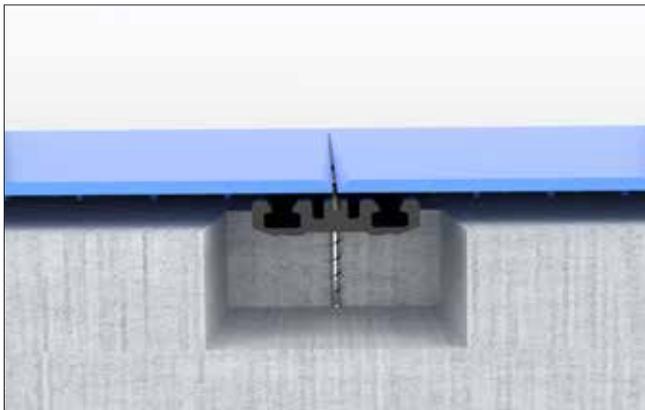
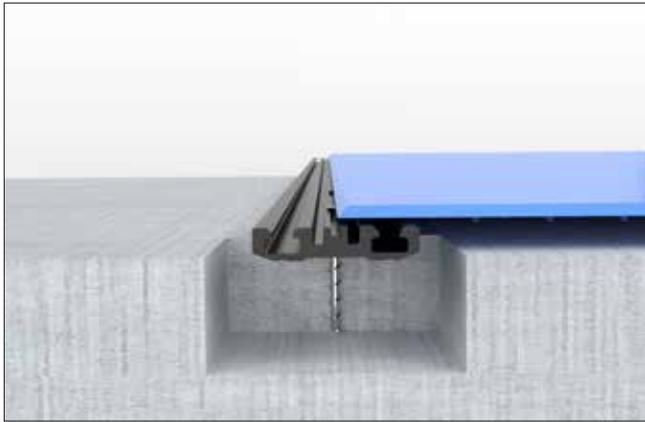
The HYDRO^{CLICK} sheets are clicked into the profiles

STEP 3:

100% tight welding of the sheet joints using extrusion welding.

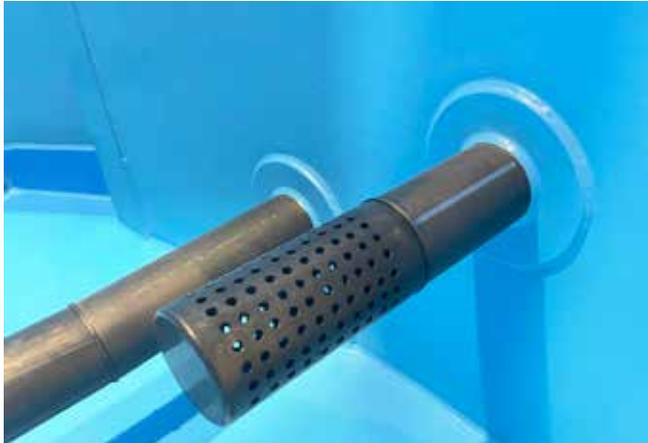
STEP 4:

Spark testing to check the weld seams for tightness.



AGRU product line

For the production of professional pipe penetrations, AGRU offers a **One Stop Shop** including pipes, semi-finished products and welding rod.



HYDRO ^{CLICK} Sheet PE 80 blue	Dimensions mm
HYDRO ^{CLICK} Sheet	4000x2000x4,0
HYDRO ^{CLICK} Sheet rolled	50000x2000x4,0

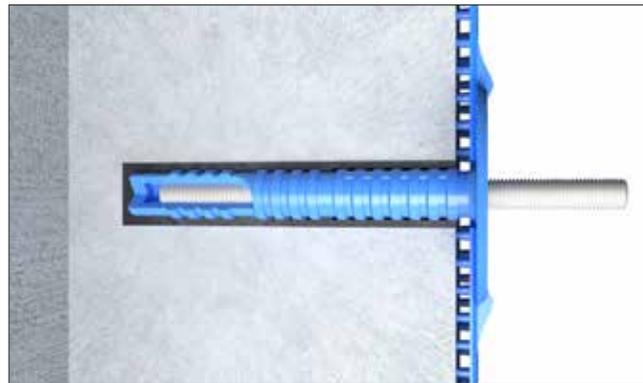
CONCRETE ANCHORS – TIGHT AND FLEXIBLE CONNECTION TO CONCRETE STRUCTURES

Concrete structures lined with HYDRO^{CLICK} often require attachments such as ladders and piping to be securely fixed. The AGRU concrete anchor can be welded to the lining system using extrusion welding to achieve a 100% tight seal.

- Easy and fast installation
- Integrated circumferential chamfer reduces welding preparation time

Concrete Anchor PE 80 blue

- 200 mm M16
- 150 mm M16
- 200 mm M12
- 150 mm M12



HYDRO⁺ – PERFECT FOR NEW CONSTRUCTION

The HYDRO⁺ concrete protective liner is ideal for lining new potable water tanks and is free from health-hazardous substances. The conical stud design developed by AGRU enhances pull-out strength and resists ground-water pressure and temperature fluctuations defined by AGRU.

HYDRO ⁺ Sheet PE 80 blue	Dimensions mm
HYDRO ⁺ Sheet	4000x2000x5,0

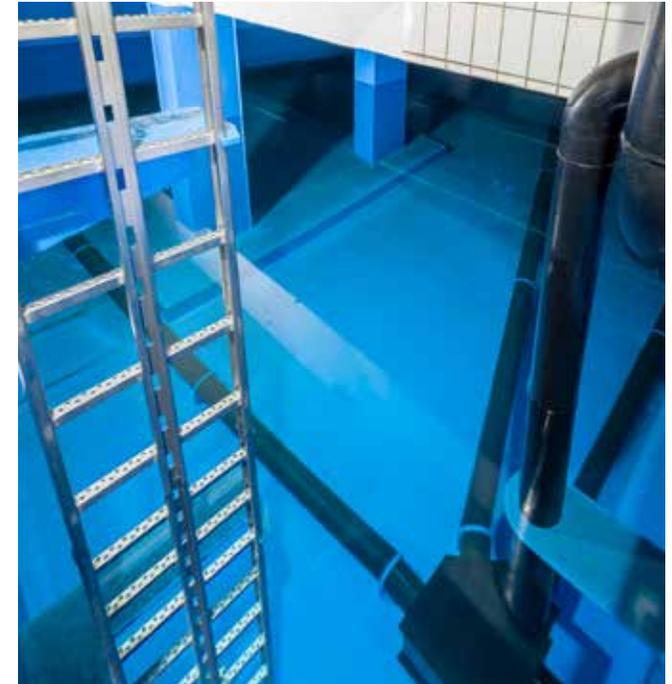


SEMI-FINISHED SHEETS OUT OF HDPE BLUE MATERIAL

Semi-finished HDPE blue components are additional parts used for creating pipe penetrations, overflow channels, pipe supports, and profiles.

All components are certified by ÖVGW.

Semi-finished Sheet HDPE blue	Dimensions mm
Sheet KTW/EN16421	4000x2000x5
Sheet KTW/EN16421	4000x2000x8
Sheet KTW/EN16421	4000x2000x10
Sheet KTW/EN16421	4000x2000x12
Sheet KTW/EN16421	4000x2000x15
Sheet KTW/EN16421	4000x2000x20
Sheet KTW/EN16421	4000x2000x30



INDUKTOFIX WELDING DISC

- Blue discs are available for penetration-free ceiling mounting of the HYDRO^{CLICK} System.
- Reduced welding time compared to penetrating systems.
- Attachment points can be either variable or in a fixed grid pattern.
- Minimizes installation costs.



WELDING-ROD

Welding can be performed without filler material (e.g., butt welding) or with filler material (hot gas welding, extrusion welding).

PE 80 welding-Rod (round cross-section, diameters in 3 mm and 4 mm) meet the requirements according to DVS guideline 2207 and are made from the same material as the HYDRO^{CLICK} System.

Welding-Rod PE 80 blue

3mm x min. 380m

4mm x min. 220m





In operation since 2011



SCHLADMING, AT
The image shows the condition as of 2023.



LA ROCHE SUR YON, FR
Lining of a circular tank with a convex tank bottom.



ZELL AM SEE, AT
Complete solution made of AGRU products.



NANNESTAD, NO
Potable water tank
Klövberget.

