

JUNE 2022 – UPDATE

- √ In excess of £2M in cash
- ✓ Operational expansion completed Mezzanine installed
- ✓ Recruitment of additional development engineers remains challenging
- ✓ Active discussions with a number of UK water companies & global utility contractors
- ✓ Second Patent granted in United States with a 3rd US Patent pending
- ✓ Updated Website

Current Status

In excess of £2 million in cash				
Unique product for replacing existing drinking water pipes				
Process/product has UK & US Regulatory approval for installation in drinking water pipes				
First live drinking water installation with Severn Trent Water Plc in a section of 9" diameter				
distribution pipe				
Cuts water pipe replacement cost by up to 50% and increases the speed, by up to 10 times,				
traditional pipe replacement				
Expanding patent portfolio with <i>patents granted in 12</i> international territories				
☐ Global business opportunity with global Intellectual Property				
☐ Environmentally friendly technology and product – <i>no chemicals and low carbon footprint</i>				
Discussions with water companies and utility contractors continue on a global basis with significant				
interest				
Target Milestones				

- ✓ Develop utility contractor ready installation equipment
- ✓ Further patent applications and international patent grants
- ✓ Complete negotiations for a series of global territorial licenses
- ✓ Launch Utility Contractor ready commercial equipment range
- ✓ Lower cost approved material supply
- ✓ Start planned UK roll out of Aqualiner solution.



Mezzanine installed

We installed a large mezzanine floor in our development centre in Loughborough providing a 50% enlargement of offices/workshop area for our increasing specialist engineering/commercial capability.

Before the mezzanine installation





After the mezzanine installation









Business Review

Three main overall activities:

- 1. Developing equipment for licensed installation contractors
- 2. Evaluating alternative raw material suppliers and improving manufacturing capabilities
- 3. Expanding the business to adapt and meet the demand of global licensed contractors conducting commercial installations

Recruitment - Operational and engineering team expansion

Recruitment of skilled engineers continues to be challenging in the current climate. We are looking for engineers with specific/relevant skills and experience that would be beneficial to developing our unique process. As we are the only company taking a thermoplastic material and lining a pressured water pipe with our equipment there is no particular market sector to recruit from. We are also finding that good candidates are challenging to locate and even then, some are interested in obtaining a "counter offer" from their existing employer. However, we are making progress, a key hire in recent months was a Control Systems Design Engineer. His role is important as we need to integrate the control aspects of all parts of our process and equipment at a central point for ease of use for installation by a water utility contractor. We are seeking to recruit a further 4 engineers in 2022 in order to make the team. We are confident that we can recruit them in this timeframe but we need to ensure we get the right people.

System design evolution

We have continued to work with a supplier of thermoplastic roving and fabric materials to provide an optimised and lower cost approved liner material supply. Having established the specialist raw material testing facility by replicating, in our development centre, the unique way we process the material underground we have identified design improvements that offer significant improvements over the commercially available materials we have historically been using. This has again confirmed our unique application for the material and the likelihood of obtaining further IP through possible patent applications. Evolution of the design of the system (pig, controller, etc) is now incorporating the requirements of these potential new liner materials.

Discussions with a number of UK water companies & global utility contractors re commercial deployment

We continue to receive considerably interest from UK water companies who want to see the product installed on their network. We are having discussions with interested potential partners/licensees in France, Ireland, Australia, Japan and a number of other countries. The commercial opportunity/activity remains as exciting as ever. We are currently advising the water companies and utility contractors that we should have commercial installation capability during 2023. This is based upon the full development team being in place in 2022.

Mitigation and Implication of recent energy prices rises

We negotiated our fixed price electricity contract for the workshop in January for 2 years. In addition, when installing the mezzanine, we changed all our lighting to low energy units. On the commercial side the change of use for "Red" (no fuel duty/tax) diesel has meant that utility contractors are not allowed to use Red diesel and are now paying in the region of 3 times the price for diesel as compared to last year which has a negative impact on the cost for "dig and replace" of water pipes.



❖ IP expansion – Aqualiner's second Patent granted in United States – with a 3rd US Patent pending

Our expansion in patent grants continued with the confirmation of 2 US patents being granted. Our patent portfolio consists of the following:

Country	Application No	Registration No	Status
Australia	2017335237		Application Filed
Belgium	17780151.1	3519723	Registered/Granted
Switzerland	17780151.1	3519723	Registered/Granted
Germany	17780151.1	602017031006.9	Registered/Granted
Spain	17780151.1	3519723	Registered/Granted
France	17780151.1	3519723	Registered/Granted
United Kingdom	1616384.2	2554431	Registered/Granted
United Kingdom	17780151.1	3519723	Registered/Granted
Ireland	17780151.1	3519723	Registered/Granted
Italy	17780151.1	502021000023243	Registered/Granted
Japan	2019-537898	6868701	Registered/Granted
Netherlands	17780151.1	3519723	Registered/Granted
United States of America	16/336458	11280439	Registered/Granted
Australia	2019221821		Application Filed
Canada	3090103		Application Filed
Europe	19708609.3		Application Published
United Kingdom	1802664.1	2571127	Registered/Granted
Japan	2020-543860		Application Published
United States of America	16/970571	11305492	Registered/Granted
United States of America	17/702297		Application Filed

Various claims cover the following areas:

- The invention is being incorporated into the heating device which is a core part of the Company's process.
- The high ratio expansion of the compressed air entering the heating device's canister in a very short distance. This achieves as near as possible even flow of air across all of the electrical heating elements.
- The design necessary to achieve even air flow and temperature as it exits the heated pig.

Upgraded Website & LinkedIn posts

- Website has been upgraded www.aqualiner.co.uk
- LinkedIn profile has regular posts please see www.linkedin.com/company/aqualiner

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