

# Platinum

## Wastewater Treatment for the Commercial Market



### Technology That Serves Customers and the Environment

Anua means 'to renew'. It describes our renewed contract with nature and our renewed focus on the development of innovative environmental solutions. We continue to develop and produce the sustainable technologies that our customers demand. Anua is part of Bord na Móna, a highly successful organisation and Ireland's leading resources company for over 75 years, which has a unique heritage and understanding of the natural environment. Bord na Móna has used its expert insights into natural processes, allied to its excellent in-house research facilities, to develop sustainable solutions across a wide range of environmental challenges – wastewater treatment, odour abatement, land reclamation, power generation, resource recovery and renewable energy. This is both Anua's history and our mission for the future. Our customers range from homeowners to major commercial, municipal and utility clients, united in seeking cost-effective solutions based on environmentally sound principles. Anua exists to serve both our customers and the natural environment. Across a broad range of sectors in countries around the world, our customers trust us to deliver the best sustainable solutions, backed by superior customer service. That is why we work with our clients throughout every project to achieve the best possible result, one that will build both our reputations. Anua enjoys the benefit of the support of a highly respected parent company with over 20 years experience in developing sustainable clean air and clean water solutions. As part of this wider organisation, we adhere to their world-class standards and values for both the technology we provide and the service we give our customers.

### Complete Solutions

We don't just sell technologies. With our extensive laboratories and Innovation Centres located in Europe and the USA, we understand new challenges, pioneer research and create new processes. We work with you to create the systems you require, ensure correct installation and offer the full services of our nationwide network of support agents and technicians. From pre-planning to installation, service and maintenance, as well as the offer of monitoring and laboratory services, Anua stands by its technology and its customers.

### Customised for Customers

Customers need a partner – and products – they can trust. Like nature itself, Anua must be adaptable and responsive to change. That means developing the solutions that best suit each individual project. For Anua staff, understanding their customers' world is their business. That depth of understanding is matched by the depth of our customer support and focus. We work with clients to design solutions that are technically superior and cost-effective. We're with you every step of the way.



#### The Environmental Advantages of Platinum

- Protection of groundwaters
- Low power usage
- No chemical additives
- No noise pollution
- Designed for minimal visual impact

#### The Platinum Advantages for You

- Simple minimal maintenance
- No moving internal parts
- Ease of installation
- Complete underground installation
- Lockable covers
- Low energy consumption
- Low sludge production
- Automatic sludge / effluent recycle system
- Highly effective certified performance – BS EN 12566-3 up to 50 PE
- Proven reliability

# The Platinum Commercial System at Work

For developments involving a number of buildings, the Anua Platinum Commercial System offers everything that you need. It's highly effective, low maintenance and with proven reliability. Just as importantly, as the demand for sustainability grows, the processes it uses are 100% natural, utilising no chemical additives.

Naturally occurring micro-organisms present in the sewage remove the biological (organic) content and nutrients which cause water pollution. Our system provides the conditions for these micro-organisms (biofilm) to grow providing highly efficient treatment to achieve high standard final effluent quality.

### Stage One: Primary Settlement - Physical Treatment

1. The wastewater flows into the first primary chamber section where initial settlement occurs.
2. The gross solids and inorganic material settle to form a sludge layer at bottom of the tank. This sludge is stored in the first phase primary section and requires removal on a periodical basis.
3. The settled liquid effluent passes through the effluent filter system for treatment in the aeration zone.

### Stage Two: Submerged Aerated Filtration - Biological Treatment

4. The aeration stage can be provided as a single or dual stage system\* with both sections utilising plastic media. The lightweight durable filter media in the aeration zone provides a large surface area to aid development of the naturally occurring micro-organisms (biofilm) which reduce the levels of BOD and NH<sub>4</sub> when in contact with the wastewater.

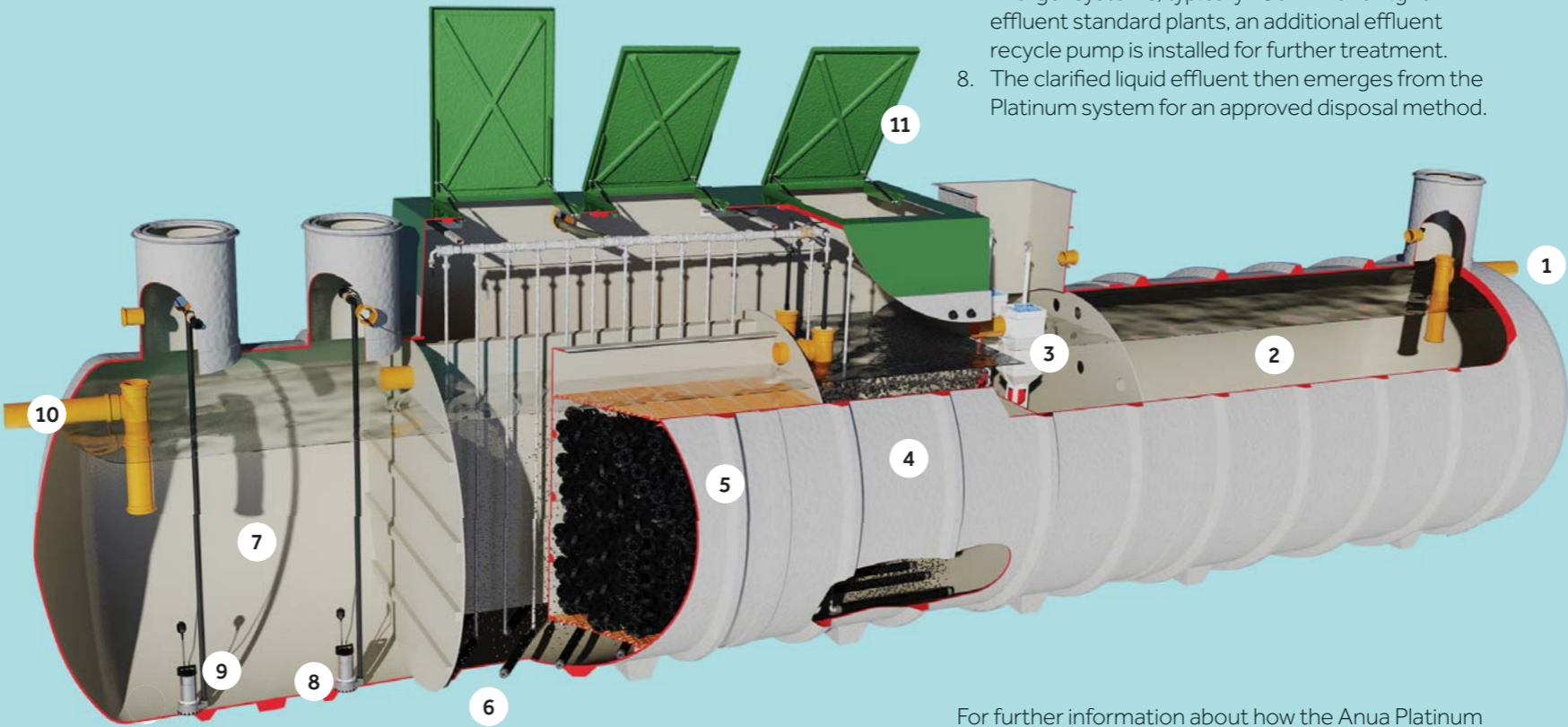
\* Typically for plants over 150 PE and / or with a higher discharge standard requirement, the aeration section is provided in two stages, while plants under 150 PE have a single stage aeration system.

When a dual stage system is provided, the first phase utilises a moving bed biological process combined with a packed media second stage for enhanced treatment of the effluent. In a single stage system, the packed media provides the submerged aerated filter.

5. In conjunction with the media, oxygen is pumped into the liquid effluent by a highly efficient air blower via a diffuser grid. Located at base level in the tank, the diffusers provide fine bubble air diffusion for greater oxygen transfer efficiency, hence ensuring optimum treatment. The air system also ensures that mature outer biofilm layers are removed from the media.

### Stage Three: Final Settlement - Physical Treatment

6. As the micro-organisms are regenerated, the oldest layer of the biofilm is removed from the media and passes with the effluent into the final chamber. Here settlement of this layer and any remaining solids occurs, reducing the levels of the SS (Suspended Solids) in the final effluent to the required standards.
7. When these solids settle as secondary sludge, they are returned via the sludge return system to the primary settlement chamber for storage. This application also allows enhanced treatment of the effluent as it is recycled through the system. In larger systems, typically 150 PE+ and higher effluent standard plants, an additional effluent recycle pump is installed for further treatment.
8. The clarified liquid effluent then emerges from the Platinum system for an approved disposal method.



For further information about how the Anua Platinum Commercial System works, go to [www.anua.co.uk](http://www.anua.co.uk) or [www.anuaenv.ie](http://www.anuaenv.ie)

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### Detailed Design Approach

Our dedicated technical design team provides individual attention to each project to build the optimum solution around your project's needs. Utilising our extensive experience in wastewater treatment design, we work with you and focus on:

**Application Type** – School, hotel, offices, new or existing build, specific design needs.

**Flows & Loads** – Calculation of potential hydraulic flows and organic loads in accordance with EPA or British Water Code of Practice Flows & Loads.

**Treatment Levels** – Level of treatment required and disposal methods.

**Installation** – Civil, Mechanical & Electrical installation requirements for your solution.

**Efficiencies & Savings** – selection of system designs to provide optimum life cycle costs.

**Regulation / Legislation** – How your project will fit with these requirements.

## The Correct Solution for You

Anua's chambers are manufactured at our dedicated facility from GRP (Glass Reinforced Plastic) to the highest standard in accordance with BS EN 4994. We have developed rigorous control procedures at all stages of manufacture to ensure that your product is built to the highest possible standards in accordance with quality procedures of ISO 9001:2000 Quality Assurance system and the ISO 14001 Environmental system.

Our flexible manufacturing process allows us to tailor the solution to best fit your project requirements with units built to suit deep or shallow inverts, above ground installations, high strength influent applications and higher rate effluent quality. Utilising our process design experience, bespoke systems can be produced to achieve final effluent levels of 10:10:5 mg/l BOD:SS:NH<sub>4</sub> with denitrification and P removal options also available.

The Platinum Commercial System is designed in accordance with BS 6297 and Building Regulations Part H2. The systems up to 50 population equivalent are certified to the highest standards required by the new European standard for treatment plants to BS EN 12566 – Part 3. The Typical Specification table is a guide in selecting the best treatment solution for your needs. If you have any specific requirements, the Anua sales team will assist and guide you along from enquiry stage through to after-sales service.

## Typical Specification\*

Model Reference	Population Equivalent (PE)	Maximum Design Flow (m <sup>3</sup> /day)	Maximum Organic Load (kg BOD /day)	Diameter (metres)	Length (metres)	Total Height (metres)	Standard Dia Inlet/Outlet (mm)	Depth Below Inlet Invert (metres)	Depth Below Outlet Invert (metres)
2015	15	3	0.9	1.8	3.5	2.7	110	1.7	1.65
2020	20	4	1.2	1.8	4.2	2.7	110	1.7	1.65
2025	25	5	1.5	1.8	5	2.7	110	1.7	1.65
2030	30	6	1.8	1.8	5.9	2.7	160	1.7	1.65
2040	40	8	2.4	2.6	4.2	3.22	160	2.22	2.145
2050	50	10	3	2.6	5	3.22	160	2.22	2.145
2060	60	12	3.6	2.6	6	3.22	160	2.22	2.145
2070	70	14	4.2	2.6	6.6	3.22	160	2.22	2.145
2080	80	16	4.8	2.6	7.2	3.22	160	2.22	2.145
2100	100	20	6	2.6	8.2	3.22	160	2.22	2.145
2125	125	25	7.5	2.6	10.4	3.22	160	2.22	2.145
2150	150	30	9	2.6	11.2	3.22	160	2.22	2.1
2175	175	35	10.5	2.6	13.1	3.22	160	2.22	2.1

All standard inlet inverts at 1000mm below ground level. Inverts can be adjusted to suit site requirements. Standard Inlet/Outlet as shown. Pipework can be amended to client's requirements. \*Details correct at time of going to press.



## Meeting the Highest Standards

Anua is committed to meeting and surpassing the highest quality standards required for each of its products. That's why you will always see national and/or international standards, accreditations for all Anua products.

Free  
pre-planning  
and site  
reports

Free  
no obligation  
quotations

Nationwide  
maintenance  
call-out service

Expert customer  
support

## Simple Installation, Minimum Maintenance

While an Anua Platinum Commercial System is made up of a number of separate components, we understand the pressures to minimise installation costs while maintaining quality. Therefore we design and manufacture the system with ease of installation and maintenance in mind. Our in-house manufacturing and fitting capabilities ensure that all tank pipe inverts / positions meet with your exact requirements for a quick, simple installation. Anua's systems do not have any internal moving parts which means no requirement to enter the tank, reducing Health and Safety risks.

## The Anua Guarantee

Every Platinum Commercial System comes with a 12-month parts and labour warranty, but Anua's commitment to you goes far beyond this.

We have a national network of approved agents and installers, who will provide you with:

**Free Pre-Planning and Site Reports**

**Free No Obligation Quotations**

**Expert Customer Support**

**Nationwide Maintenance Call-out Service**

For further information, go to [www.anua.co.uk](http://www.anua.co.uk) or [www.anuaenv.ie](http://www.anuaenv.ie)

## Complementary Products for the Platinum Commercial System

- Plant Alarm Systems
- Telemetry
- Sample Chambers
- Weatherproof GRP Enclosures & Kiosks
- Deep Invert / Above Ground Applications
- Forward Feed or Final Effluent Pump Stations
- Nutrient removal – P Removal / Denitrification
- Tertiary treatment for enhanced treatment levels
- Tertiary treatment for enhanced treatment levels

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### Renew



Wastewater  
Treatment

### Recover



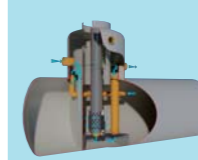
Rainwater  
Harvesting

### Re-direct



Pumps

### Recycle



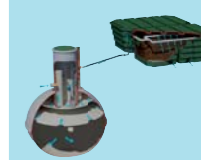
SUDS

### Rarefy



Odour  
Abatement

### Retain



Holding  
Tanks

In keeping with company policy of continuing research and development and in order to offer our clients the most advanced products, Anua reserves the right to alter specifications and drawings without prior notice.



Paper made from trees matured in sustainable,  
well managed forests and is certified to FSC standards