

佳作

Honorable Mention

庫塑拉

CoolSuLa

作者 Creator

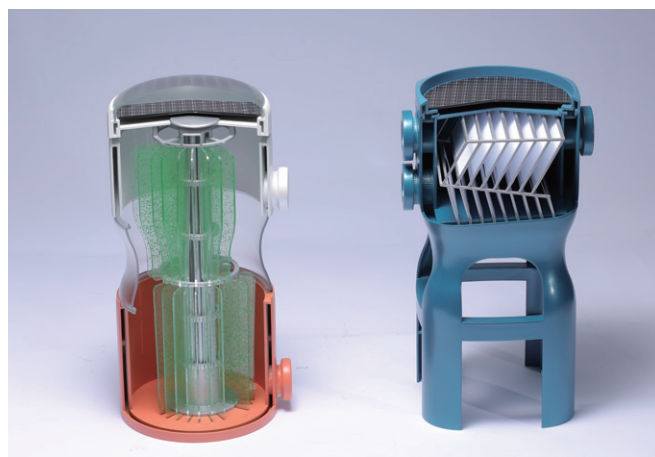
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庫塑拉是座可改善飲水微塑膠含量的微塑膠攔截與降解設備，設置於淨水廠的澄清站與殺菌站中間，將澄清的水經庫塑拉攔截槽進行微塑膠過濾，接著將含少量水的微塑膠液體導入降解槽中，利用銅綠假單胞菌進行長時間降解。降解槽內設有可讓銅綠假單胞菌增加與微塑膠接觸面積的放射狀薄膜；頂部太陽能凸透鏡提供遠紅外線加熱片電力，讓降解槽內維持36°C至42°C，使銅綠假單胞菌得以生存與加速分解效率。微塑膠降解後產生的二氧化碳，可使銅綠假單胞菌進行光合作用，避免造成二氧化碳排放；而降解後的水可再送回淨水廠進行使用。

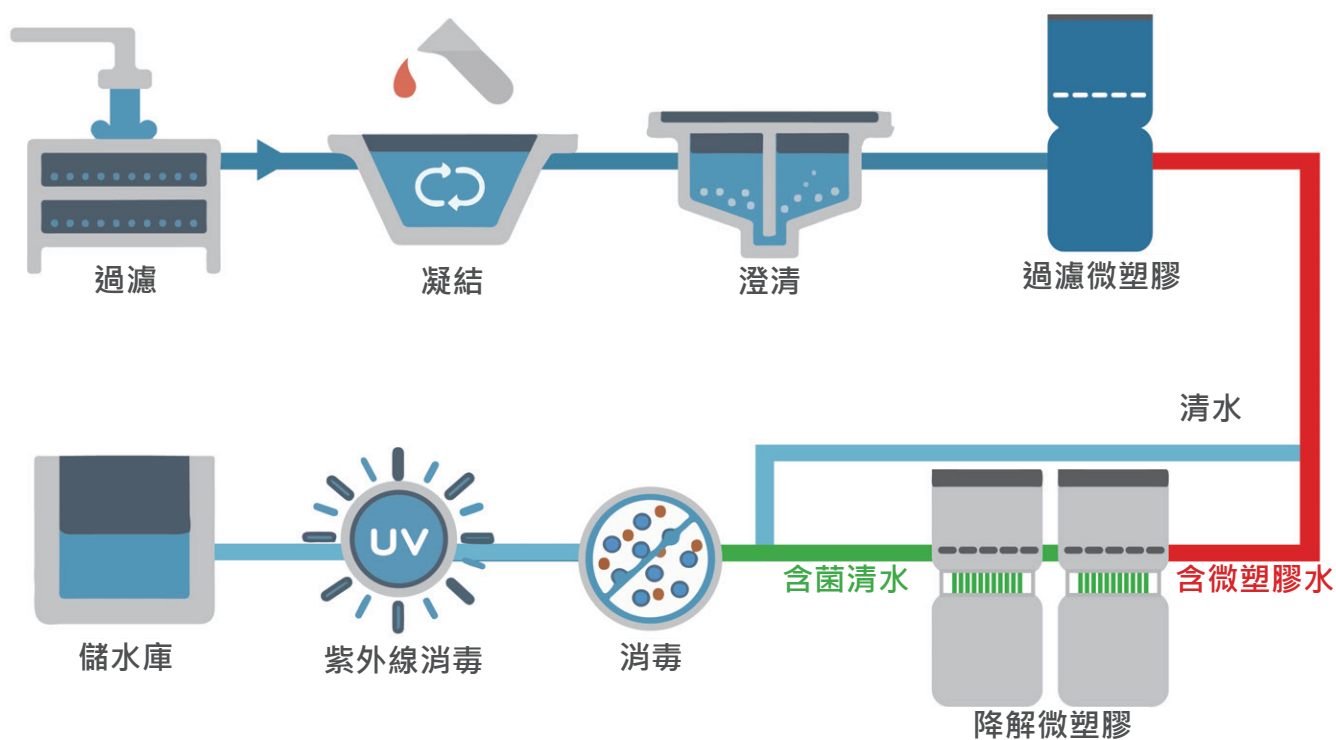
CoolSuLa is a water purification equipment that could reduce the volume of micro-plastic by degradation system. Set between the clarification and sterilization area in the water purifying plant, Coolsula will first filter the micro plastic in its interception tank and then transmit the micro plastic liquid that contains a small amount of water to the degradation tank. The *Pseudomonas aeruginosa* will then start the long process of degradation. The degradation tank is equipped with a radiated film that increases the contacting area of *Pseudomonas aeruginosa* and micro plastic. The solar convex lens on the top provides heating power to maintain the temperature in the degradation tank between 36°C to 42 °C, allowing the existence of *Pseudomonas aeruginosa* and accelerate its' decomposition efficiency. And the CO₂ produces through the process will become the material for photosynthesis of the bacteria, so there won't be any emission of carbon dioxide. After all these process, the degraded water will be send back to the water purifying plant..



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淨水流程導入



Purification Process

