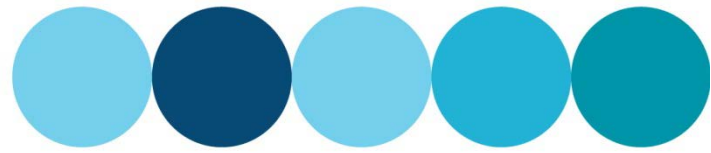


Approval certificate



Trade waste pre-treatment product

Applicant: OLEOLOGY
Postal address: 30 Parkinson Lane Kardinya WA 6163

Attention: Paul Callaghan
Web: oleology.com.au
Email: pcallaghan@oleology.com.au

Manufacturer: MyCelx
Address: 470 Woods Mill Rd Gainesville GA 30501 USA

Product/device description

The MyCelx Advanced Coalescing Separator (MAC) is a stand-alone waste water and bilge water treatment system. The system includes an advanced oil water separator and MyCelx patented polishing elements to treat the incoming oily water to less than 15ppm for discharge (compliant to the [IMO MEPC regulation 107\(49\)](#) (International Maritime Organisation, Marine Environment Protection Committee)).

The system includes the MyCelx advanced oil water separator (MAC) with further separation stages to follow. The flow through the system is regulated by the pump after the MAC oil water separator. The pump is installed post the MAC primarily to avoid mechanical emulsion prior to oil separation. MyCelx polishing stage includes a bag filter to capture any solids coming through the oil water separator. Bag filter reduces the chances of premature saturation of MyCelx filter cartridges from solids.

There are at least two stages of MyCelx polishing cartridges to polish dispersed, semi-emulsified and emulsified and soluble oils in the waste water. The Oil Content Meter (OMC) is coupled with the control system, through a PLC and connected to solenoid valves, in such a way that only treated water less than 15 ppm is discharged from the system automatically. On detection of oil concentration >15ppm, the PLC closes the clean water discharge solenoid and opens the recirculation solenoid valve and triggers an alarm.

If the discharge from the system is greater than 15ppm then the system will operate in recirculation mode till the outlet concentration is less than 15ppm. Prolonged recirculation indicates saturation of filters and/or overloading of oil water separator media.

Approval Number	Model	Material of Construction		Coalescing Media	Operating Temp Range	Max Free Oil Conc	Height (cm)	Width (cm)	Depth (cm)	Dry Weight (kg)	Capacity (m ³ /h)
		Vessel	Pipes & Fittings								
AN-036-01	1.0	EUCCS ¹	MGRBB ²	PP / HDPE ³	5-55°C	35%	163	132	107	408	1.0
AN-036-02	2.5	EUCCS ¹	MGRBB ²	PP / HDPE	5-60°C	35%	191	142	107	680	2.5
AN-036-03	5.0	EUCCS ¹	MGRBB ²	PP / HDPE	5-60°C	35%	203	152	132	1,293	5.0
AN-036-04	10.0	EUCCS ¹	MGRBB ²	PP / HDPE	5-60°C	35%	180	203	163	1,701	10.0

¹EUCCS = epoxy / urethane coated carbon steel.

²MGRBB = marine grade red brass / bronze

³PP / HDPE = polypropylene / high density polyethylene

Special conditions of approval

1. The product must comprise both the primary oil water separation unit (the MyCelx Advanced Coalescer) and the water polishing unit (MyCelx Filtration) as a combined singular complete package. The Corporation does not accept the use of the primary oil water separation unit (the MyCelx Advanced Coalescer) or the water polishing unit (MyCelx Filtration) as individual trade waste pre-treatment products.
2. The product shall be *supplied* with manufacturer's installation instructions and recommended procedures for operation and maintenance.
3. The product shall be *installed* strictly in accordance with the manufacturer's written instructions and performed by a licensed plumber (as per *MyCelx 107-49 Separator System Installation and Application Manual*, Rev 1, dated 16 December 2014).
4. The product shall be *maintained* strictly in accordance with the manufacturer's written instructions (as per *MyCelx 107-49 Separator System Operations and Maintenance Manual*, Rev 0, dated 16 July 2014). A *maintenance* contract is to be in place to ensure the ongoing reliability of the product.
5. Water Corporation must be notified within fourteen (14) days upon installation of the product.
6. Clear access for the purposes of maintenance or servicing of the product must be maintained at all times.
7. This approval certificate is not an endorsement of the product by Water Corporation, and no claim shall be made in advertising, promotion or other manner to the effect.

Approval certificate



Trade waste pre-treatment product

Special conditions of approval (continued)

8. Water Corporation accepts no responsibility for the effective operation, performance or efficiency of the product.
9. The proponent of the approved product must formally seek a request for re-approval of the product no later than three (3) months before the assigned **Validity Period** has expired from the **Date Issued** of this approval certificate.
10. Water Corporation reserves the right to vary any requirements at any time. Any application of this condition normally occurs after consultation with the manufacturer, supplier and end business user connected to Water Corporation's sewer.
11. Water Corporation shall be notified in writing if the product is withdrawn from sale.
12. The proponent of the approved product accepts that the information provided in this document shall be made publically available.

General conditions of approval

Approval shall be **suspended** where any of the following conditions are not met:

1. If there is a breach of the Special Conditions.
2. The assigned **Validity Period** has expired from the **Date Issued** of this approval certificate.
3. The product shall be manufactured in accordance with Water Corporation's requirements at the time of approval.
4. The product shall be manufactured to comply according to the details noted in Special Conditions 3 and 4, and approved drawings below, in addition to any further details provided by the proponent when seeking this approval.
5. The product supplied for use in Water Corporation's area of operations shall comply with the requirements shown on this approval certificate. Sizes, classes, lengths or other product variables which are available with the product but which are not approved as listed on this approval certificate shall not be offered by the supplier for use in Water Corporation's area of operations.
6. All discharges to sewer associated with this product must not exceed Water Corporation's *Trade Waste Acceptance Criteria*.
7. Prior to any business (which is connected to Water Corporation's sewer) installing this product the business must apply to Water Corporation for a *Trade Waste Permit* for approval to discharge.
8. If this certificate has been issued to the manufacturer of this product then it is the responsibility of the manufacturer to ensure all current and future suppliers / vendors of this product are provided a copy of this approval certificate.

Approval shall be **reviewed** where any of the following conditions occur:

1. The product is manufactured with either different materials, methods of manufacture, location of manufacture, source of raw materials, component subcontractors or models to that at the time of approval.
2. The ownership of the primary manufacturer or any subcontractors is varied from that at time of approval.
3. The standards and/or specifications to which the product was required to comply with at the time of approval have been amended or revised.
4. The product has been found to sustain damage or provide unsatisfactory performance on occasions of number considered excessive by Water Corporation, when handled, stored, assembled or installed in accordance with the supplier's or manufacturer's written instructions.

Approved drawing(s): 1.0 m3/h Bilge Unit (drawing 10M3LBV001RM1 Rev M1, dated Dec 2014)
2.5 m3/h Bilge Unit (drawing 2.5M3LBV001RM1 Rev M1.1, dated Dec 2014)
5.0 m3/h Bilge Unit (drawing 5.0M3LBV001RM1 Rev M1, dated Nov 2014)
10.0 m3/h Bilge Unit (drawing 10.0M3LBV001RM1 Rev M1.0, dated Dec 2014)

Authorising person: Stephen Jerkovic (Team Leader – Investigations)

Date issued 12 September 2017

Validity period: Five (5) years