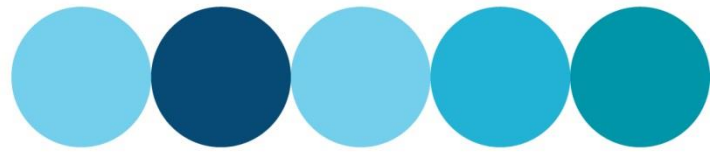


Approval certificate

Trade waste pre-treatment product



Applicant: MAK Industrial Water Solutions Pty Ltd

Postal address: 36 Beringarra Ave Malaga WA 6090

Manufacturer: MAK Industrial Water Solutions Pty Ltd

Address: 36 Beringarra Ave Malaga WA 6090

Attention: Jon Keenan-Smith

Web: www.makwater.com.au

Email: info@makwater.com.au

Product description

Clearmake separators are designed to reduce oil contaminated water (typically found from automotive industries and wash down bays) to an oil content of less than 30 ppm. Clearmake separators are gravity separators that incorporate Vertical Tube Coalescing (VTC) packs.

The VTC packs utilise a block of vertically oriented 40 mm tubes that consist of bonded strands of spaced-apart polyethylene in a helical pattern. They are constructed from oleophilic polypropylene to promote coalescing of oil droplets and enhance flotation separation from the contaminated water.

All units are manufactured from 304 Stainless Steel as standard and are fully seal welded. Pump types can vary between a low shear pump and a diaphragm pump. Both pumps are designed to transfer waste water without emulsifying the waste water stream and inhibiting separation efficiency.

The acceptance certificate applies to the pre-treatment devices of the following sizes:

Approval Number	Models	Coalescing Medium	Tube Packing Arrangement (mm)	Treatment Flow Rate	Inlet / Outlet Diameter (mm)	Final Filter Bag
AN-014-01	CB 1.0 SS	VT* 40 mm ID	(290 x 775 x 275) x 1	0.20 L/s	40 / 50	Not available
AN-014-02	CL 1.5 SS	VT* 40 mm ID	(370 x 620 x 350) x 1	0.28 L/s	40 / 50	1 x 100 µm
AN-014-03	CL 3.0 SS	VT* 40 mm ID	(370 x 620 x 350) x 2	0.42 L/s	40 / 50	2 x 100 µm
AN-014-04	CL 5.0 SS	VT* 40 mm ID	(370 x 620 x 350) x 2	1.17 L/s	50 / 65	Not available

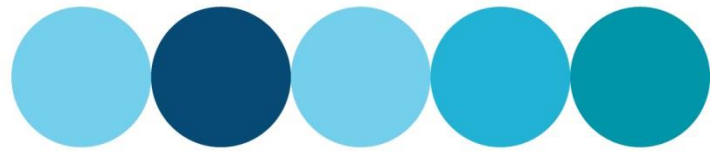
* Vertical tube

Special conditions of approval

1. The product shall be *supplied* with manufacturer's installation instructions and recommended procedures for operation and maintenance.
2. The product shall be *installed* strictly in accordance with the manufacturer's written instructions and the *Plumbing Standards*, with particular emphasis on the following:
 - a. Oil water separators must be installed in a bunded area and connected back to the pump pit.
 - b. A Trade Waste Sampling Point (TWSP) must be installed according to the Corporation's typical drawings.
 - c. The outlet pipe must be plumbed via a tundish that is separate and upstream to the TWSP.
3. This approval certificate is not a stand-alone document and **must be read** in conjunction with Water Corporation's *Typical Drawings for Trade Waste*:
 - a. *Coalescing Plate Separator (HX33-12-10)*
 - b. *Trade Waste Sampling Point (HX33-11-30)*
 - c. *Sealed trade waste sampling points (HX33-10-10)*
4. 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. The use of emulsifying agents upstream of the product must not occur. Such instructions must be noted on operating documentation.
7. The product chosen must be suitably sized to avoid surge conditions.
8. Clear access for the purposes of maintenance or servicing of the pre-treatment device must be maintained at all times.
9. 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.
10. Water Corporation accepts no responsibility for the effective operation, performance or efficiency of the product. This approval is not an engineering approval or structural endorsement.

Approval certificate

Trade waste pre-treatment product



Special conditions of approval (continued)

11. 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.
12. 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.
13. Water Corporation shall be notified in writing if the pre-treatment device is withdrawn from sale.
14. The proponent of the approved product accepts that the information provided in this document shall be made publicly 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 **Installation, Operation and Maintenance Manual (version 4.0, dated 01st March 2023)**, 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*. Where the discharge *has* or is *likely* to exceed the *Trade Waste Acceptance Criteria* then the Corporation may direct a *specific* or *ongoing* maintenance requirement to be followed.
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. It is the responsibility of the proponent to immediately advise Water Corporation of any changes to the proponent's drawings and installation, operation and maintenance manuals made at the time of approval.
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): CB 1.0 SS Oil/Water Separator GA (drawing 060727PM1-01, dated 27/07/2006)
CB 1.5 Oil/Water Separator GA (drawing MAKOWS-015-VA-001, dated 07/08/2018)
CB 3.0 Oil/Water Separator GA (drawing MAKOWS-030-VA-001, dated 07/08/2016)
CB 5.0 SS Oil/Water Separator GA (drawing MAKOWS-050-VA-001 dated 25/08/2017)

Authorising person: Stephen Jerkovic (Team Leader – Investigations)

Date issued 02 March 2023

Validity period: Five (5) years