Approval certificate

Trade waste pre-treatment product



Applicant: Eco Guardians Pty Ltd Attention: David Berry

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Manufacturer: FM Environmental

Address: Greenbank Industrial Estate, Newry, BT34, 2QX, Northern Ireland

Product description

The Grease Guardian active grease separator is designed to trap and remove grease, fat and oil.

Waste water from a commercial kitchen can be directed through the inlet pipe where a removable strainer basket collects any solid debris. The top lid is specially hinged that allows for easy access to empty the strainer basket. Free-floating grease, fat and oils in the waste water enter the retention chamber. Lighter grease, fat and oils rise to the surface and are mechanically trapped while clear water exits by displacement under the outlet baffle to final discharge from the unit. A timer-driven heating element located in the retention chamber is activated by a timer mechanism to liquefy any solid grease. A motor operated skimming wheel collects the liquefied surface materials and transfers it to the outlet pipe using a wiper blade assembly. The mechanically skimmed grease, fat and oil flow through a pipe to a collection container supplied with the system.

The device range is manufactured from 16 gauge, 304 stainless steel and fitted with a 25 watt motor. Nominal flow rates vary from 0.75 to 5.0 L/s depending on the model. All models have a maximum capacity 12 kg/hr of grease/fat/oil. Fitted basket strainers have a capacity of 2.5 – 10 L (depending on the model).

The approval certificate applies to the pre-treatment products of the following sizes:

Approval Number	Model	Max Flow Rate (L/s)	No. Skimming Wheels	Internal Solids Strainer Capacity	Strainer Clearance (mm)	Inlet / Outlet Diameter (mm)	Inlet Height* (mm)	Outlet Height* (mm)
AN-011-01	D1	0.75	1 – 3 (max)	3 L	500	60 / 60	150	150
AN-011-02	D2	1.25	1 – 3 (max)	4 L	620	60 / 60	225	210
AN-011-03	D3	1.75	2 (min) – 3 (max)	8 L	705	90 / 90	310	260
AN-011-04	D4	2.25	2 (min) – 3 (max)	8 L	710	115 / 115	295	230
AN-011-05	D5	3.50	6 (max)	10 L	920	115 / 115	405	335
AN-011-06	X7c	0.50	1 drum	2.99 kg	405	48 / 48	211	151
AN-011-07	X7s	0.50	1 drum	2.99 kg	405	48 / 48	321	251
AN-011-08	X15	1.00	1 drum	2.99 kg	405	60 / 60	215	87
AN-011-09	X25	1.58	1 drum	2.99 kg	405	60 / 60	298	170
AN-011-10	X35	2.21	1 drum	2.99 kg	405	89 / 89	281	170

^{*} Invert level

Special conditions of approval

- 1. Connection of the product must be upstream of an appropriately sized Water Corporation approved passive grease arrestor.
- 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. **The product cannot be used downstream of glass washers or dish washers.**
- 4. A maintenance contract is to be in place to ensure the ongoing reliability of the product. The devices must be cleaned at least every six (6) months and no later than every twelve (12) months, preferably by a qualified service agent.
- 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 product must be maintained at all times, as per supplied dimensions, as per supplied dimensions for all models D1 through to D5 and X7 to X35.



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Special conditions of approval (continued)

- 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.
- 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 product 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 the approved drawings noted 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*. 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): D1, D2, D3 and D4 Grease Guardian 230 VAC Specifications (Jan 2019)

D5 I.S. Grease Guardian 230 VAC Specifications (Jan 2019) GGX7c Combi Guardian 230 VAC Specification (Jan 2019)

GGX7s Grease Guardian 230 VAC Specification c/w Frame (Jan 2019)

GGX15 Grease Guardian 230 VAC Specification (Jan 2019) GGX25 Grease Guardian 230 VAC Specification (Jan 2019) GGX35 Grease Guardian 230 VAC Specification (Jan 2019)

Authorising person: Stephen Jerkovic (Team Leader – Investigations)

Date issued04 January 2021Validity period:Five (5) years

