



**WATER SERVICES ASSOCIATION
OF AUSTRALIA**

PRODUCT APPRAISAL APPLICATION

FROM

EVERBRIGHT TRADING PTY LTD

Commercial Trade Waste Pre Treatment Products

MODEL NUMBERS SA-001 AND SA-002

In Sink Basket Arrestors

Complying with WSA-PS-840

21 September 2012

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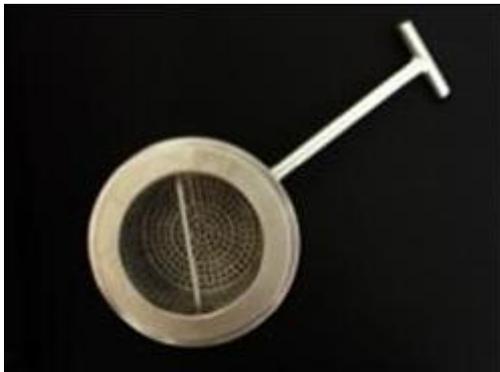
1 The Applicant

Everbright Trading is a specialist stainless steel fabricator that has been making high quality trade waste fittings since 2005. All products are manufactured locally and to high standards to suit Australian conditions, standards and regulations.

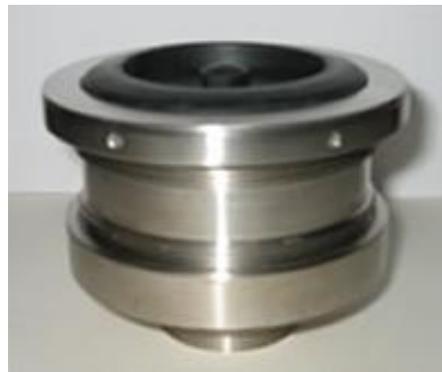
<http://www.everbright.net.au/index.html>

2 The Product

The SA-001 and SA-002 are similar in-sink basket arrestor fittings with the SA-002 being a variation of the original and very successful SA-001.



SA - 001 Bucket Trap without plug



SA- 002 Bucket Trap (low profile) with plug

Both are designed to maximise the efficiency of trade waste pre-treatment. This is done by having two physical barriers that retain solid debris which, if not caught, may block the sewage pipe and/or reduce the function of the grease trap. They are designed for commercial kitchens where large amounts of food scraps are produced during and after food preparation, and where demand for an effective trade waste pre-treatment method is high.

Both models share the following key features:

- Removable primary plus fixed secondary screening system
- Hand-sized, easily removable primary mesh basket
- Hand-width fixed screen
- Low profile
- Low maintenance design
- Durable, high quality food grade (304) all-stainless steel construction

The SA-001 does not use a sink plug to stop flows to waste when sink filling; it has a stainless steel butterfly valve at the bottom of the assembly that is operated by an extended T-handle. The design of the SA-002 differs as follows:

- Butterfly valve and accompanying housing deleted
- Durable, food grade rubber plug used to stop flow
- Top flange redesigned to accommodate snug fit for rubber plug
- Removable basket redesigned to accommodate plug
- No moving parts

In short, the SA-002 model of the Everbright DBA is simpler, is more easily installed and has an even lower profile. It is particularly suitable for kitchens where under sink space is limited.

In Sink Basket Arrestor Technical Information

	Model No SA-001	Model No SA-002
Main Body		
Material construction	Food grade 304 stainless	Food grade 304 stainless
Volume main body cc	0.6 litres	0.4 litres
Sink outlet size mm	50mm BSP	50mm BSP
Out let size mm	44mm	50mm
Outlet minimum waterway area mm ²	1,500	1,500
Filter Basket		
Material	Food grade 304 stainless	Food grade 304 stainless
Volume of basket	0.5 litres	0.3 litres
Hole size mm	4	4
Number of holes	750	750
Flow area mm ²	9,000	9,000
Secondary Fixed Screen		
Material	Food grade 304 stainless	Food grade 304 stainless
Volume of basket cc	0.6 litres	0.4 litres
Hole size mm	4	4
Number of holes	60	60
Flow area mm ²	750	750

3 Applicability

Suitable for commercial kitchens involved in all kinds of food preparation.

4 Appraisal Criteria

This Appraisal Report has been compared against the requirements of WSAA Specification WSA-PS-840 In Sink and In Floor Basket Arrestors. While neither model has been submitted for WaterMark Certification to AS3500 both fittings meet or exceed the criteria set down in WSA PS-840..

5 Quality Assurance Requirements

The product was designed to satisfy relevant Australian Standards such as AS3500 as well as Occupational Health and Safety regulations for such a device with its intended application.

Each unit is thoroughly tested using a checklist post manufacture to ensure all connecting parts fit and all moving parts operate correctly. Where the manufacturer also installs the fittings, a second quality control check is performed to ensure there are no leaks and that the moving parts function in situ as intended.

Standard	Requirement	Compliance
ISO 9001:2008		No
WaterMark Certification to AS 5200 - 2006 – Procedures for certification of plumbing and drainage products		No
AS 3500:2003 – Plumbing and Drainage		Yes
AS/NZ 4494:1998 – Discharge of commercial and industrial liquid waste to sewer – General performance requirements.		Yes

6 Design Requirements

The design of both models complies with or exceeds the requirements of WSA-PS-840.

Factory test reports show that both the SA-001 and SA-002 allow flow rates that are not less than those achieved by a normal sink fitted standard S or P-traps. Several factory tests of each fitting showed that for a sink filled with 60 litres of water the average flow rates were 1.45 litres/second for the SA-001 and 0.95 litres/second for the SA-002. These rates are consistent with those found in practice without traps.

7 Compliance to the Appraisal Criteria

Complying specifications and drawings are provided in Appendix 1 with further drawings in Appendix 4.

8 Installation Requirements

The following provides installation requirements for each model.

SA-001

The installation of the Everbright SA-001 is quite simple, and can be performed by any qualified plumber. (See photograph of Everbright DBA components in Appendix 1)

The sink needs to have a 114 mm diameter hole with a 135 mm wide flat annulus to accommodate the top flange of the fitting (see drawing SK6 in Appendix 5). New sinks can be ordered to this specification. Existing sinks will need a new hole cut and an annulus area pressed in. This can be performed by an hydraulic press type cutter fitted with a sized die. These can be purchased by installers from plumbing trade outlets, hired or the service can be sub contracted to the manufacturer.

Once there is a hole of the correct size, the flange of the SA-001 is inserted into the hole with the threaded sections facing down to meet corresponding thread inside the body of the SA-001. The body is then screwed upwards to connect with the flange. The union ring round the body of the SA-001 is then also screwed upwards to create a watertight seal and stable fixing. There are five holes in the union to enable sufficient tool grip for tightening purposes.

The secondary fixed strainer is then screwed upwards into the body of the fitting and the grooved union ring below is screwed onto the threaded outlet which houses the butterfly valve. This is finally connected to the S or P trap, which in turn connects to the sewage system. All the threads should be sealed using silicon.

The union connecting the secondary fixed strainer of the SA-001 with the butterfly valve unit has been designed to enable a good grip through the inclusion of six vertical 7 mm grooves around its outer edge.

SA-002

The installation of the Everbright SA-002 is also quite simple, and can be performed by any qualified plumber. (See photographs in Appendix 1)

The sink needs to have a 114 mm diameter hole with a 135 mm wide flat annulus to accommodate the top flange of the SA-002 (see drawing SK6 in Appendix 5). New sinks can be ordered to this specification. Existing sinks will need a new hole cut and an annulus area pressed in. This can be performed by an hydraulic press type cutter fitted with a sized die. These can be purchased by installers from plumbing trade outlets, hired or the service can be sub contracted to the manufacturer.

Once there is a hole of the correct size, the flange of the SA-002 is inserted into the hole with the threaded sections facing down to meet corresponding thread inside the body of the SA-002. The body is then screwed upwards to connect with the flange. The union ring around the body of the fitting is then also screwed upwards to create a watertight seal and stable fixing. There are five holes in the union ring to enable sufficient tool grip for tightening purposes.

The secondary fixed strainer is then screwed upwards onto the body of the SA-002. Next, the lower outlet of this fixed strainer is connected to the S or P trap, which in turn connects to the sewage system. All the threads should be sealed using an approved sealant.

Before use, the primary mesh basket is inserted into the body of the SA-002, and the rubber plug should be fitted snugly into the top flange whenever the sink is required to hold water.

9 Operation and Maintenance

SA-001

Operation - this unit operates without the normal sink plug. Waste flow is controlled by a butterfly valve which has an extended T-handle for ease of access and use even with greasy hands. Operators have direct access to the primary trap at the top of the fitting which has a small handle so it is easy to remove and empty. Should waste be washed from the sink when this primary trap is missing this is caught by a fixed screen at the bottom of the unit. There is good hand access to this screen and it should be cleaned regularly.

Maintenance – this model does not require any maintenance. A rubber O-ring in the operating shaft of the butterfly valve may need to be replaced after a number of years but this is very easy to do. These are a standard industry size but stocks of spare parts are maintained by the factory.

SA-002

Operation – this unit operates like a normal sink except that it accommodates a removable trap that sits under the rubber plug. This trap has a handle so is easy to remove and empty. Should waste be washed from the sink when this primary trap is missing this is caught by a fixed screen at the bottom of the unit. There is good hand access to this screen and it should be cleaned regularly.

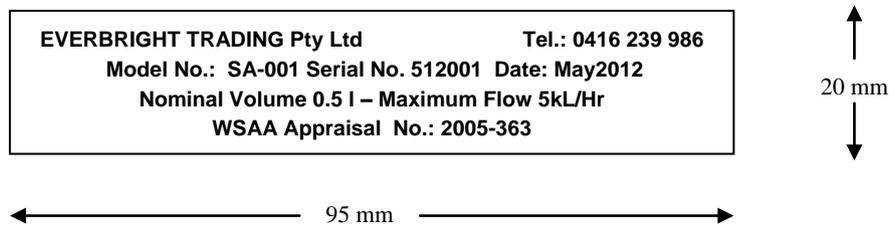
Maintenance - the food grade plug will last many years without servicing but may need to be eventually replaced. A spare should be kept on site more to mitigate against the risk of plug loss. These are a standard industry size but stocks of spare parts are maintained by the factory.

10 Identification

A compliance plate will be fixed to the neck of the In-Sink Basket Arrestor prior to distribution and in the form of a water-proof sticker. The compliance plate will contain the following information:

- a. The Manufacturer's name
- b. Contact phone number of the manufacturer
- c. Model number
- d. Nominal operating volume in litres
- e. Serial Number
- f. WSAA Appraisal Number
- g. Date of Manufacture
- h. Maximum flow rating per hour

The size of the compliance plate is 20 mm x 95 mm as shown below:



11 Warranty Statement

All products have a warranty against defective materials and workmanship of 5 years.

Appendix 1 – WSA-PS-840 Product Specification – In Sink Basket Arrestors

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PRODUCT SPECIFICATION

WSA PS – 840 SINK WASTE ARRESTOR

800.1 SCOPE

This specification is intended to provide a technical specification for the appraisal of sink waste arrestors.

REQUIREMENTS

- 1 Sink waste arrestors must have WaterMark Certification to AS 3500:2003 – *Plumbing and Drainage*, and comply with the principals of the following standards:
 - i. AS 5200 - 2005 – *Procedures for certification of plumbing and drainage products*,
 - ii. AS/NZ 4494:1998 – *Discharge of commercial and industrial liquid waste to sewer – General performance requirements*.
2. A removable basket must be supplied for use in conjunction with a fixed screen and/or a failsafe cut-off mechanism
3. The fixed screen must be in place or failsafe mechanism used below the removable basket. The fixed screen and or the failsafe cut-off mechanism must be robust to prevent its removal and intentional damage or bypass.
4. The basket should have a handle or other group to allow easy removal from the apparatus.
5. The design of the top of the basket and apparatus should be such that the waste water flow will be into the basket rather than down the side of the basket.
6. The flow rate through the removable basket in situ with the fixed screen must comply with AS/NZS 3500:2003 minimum waterway area (mm²). Where the grating has a waterway less than that identified in Table 1, the flow rate is to be greater than the maximum flow rate from a tap outlet as specified in AS/NZS 3500:2003

Table 1 Minimum Waterway Area (mm²)

Sink Outlet Nominal Size (DN)	Minimum Waterway Area (mm ²)
32	250
40	450
50	800
65	800
80	800
90	1000
100	1200
150	2000

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7. The hole size for the basket and fixed screen must not be greater than 4 mm
8. Replacement screens must be available as part of the product range
9. The surface of the device including the basket must not have any sharp edges
10. The size of the basket must be sufficiently greater than a standard sink strainer and be suitable to capture food solids generated in commercial kitchens. The basket should hold at minimum of 0.2 L of strained material.
11. The mode of operation of the in sink basket trap shall be such that it can be easily mastered by kitchen hands.
12. The number and size/dimension of the holes is required for both the fixed screen and the removable basket.

800.3 FORMAT OF THE APPLICATION AND SUPPORTING INFORMATION

The appraisal application is to be presented in both hard and soft copy. It should be in Helvetica font. The hard copy should be loose leaf and two holes punched, pref and the soft copy on either a USB storage device or CD in files that are no larger than 2MB in size.

Your application should address the following in the order shown below:

1. Introduction
 - a. An overview of the manufacturer and or distributor
 - b. Overview of the product
2. Quality control
 - a. Quality Management System Certification
 - b. Evidence of conformance with the requirements (800.2) of this Specification
 - c. Any additional approvals
 - d. Any additional testing programmes and results.
3. Applicability
 - a. Waste water generation activity applicable to the product
 - b. Provide a product schedule of all products in the range (e.g. 32mm to 150mm), which includes sizing, maximum nominal flow rate (litres/sec), and operational weight (kg) of each model.
4. Specifications and Drawings
 - a. Detailed scale drawings of all components of the product in sufficient detail to permit accurate determination of all relevant volumes, internal/external diameters and air spaces, pipe connections, arrangement and dimensions of screens and any other component essential to the operation of the product. All drawings are to be in millimetres.

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- b. Materials of construction are to be provided.
 - c. Detailed of the products means of connection is to be provided
5. Installation Requirements
- a. Details of the installation requirements for the product range is to be supplied, including, but not limited to product handling,
 - b. Location guidance for installations,
 - c. Details on any building code requirements
 - d. Drainage diagram for connection to discharge pipe work
 - e. Any non-standard installation applications.
6. Operation and Maintenance
- a. Operating Manual
 - b. Maintenance schedule detailing all maintenance procedures and frequency
 - c. Cleaning procedures
7. Identification
- a. Compliance Plate – A compliance plate must be fitted to each unit, constructed of a robust and durable material, placed in a location where it will remain visible after installation and legible for the life of the unit. The compliance plate must be fitted before leaving the factory and must contain the following information:
 - i. Brand or Manufacturers name
 - ii. Contact phone number of the manufacturer
 - iii. Model Number
 - iv. WSAA Appraisal Number
 - v. Date of Manufacture
 - vi. Rating per day
8. Warranty
- a. The product is to have a warranty of a minimum of 5 years

Documentary evidence of all aspects of this technical specification will be required to be provided for consideration by the WSAA product appraisal committee. The product appraisal committee is made up of technical experts drawn from WSAA members.

Appendix 2 – Evidence of Quality Assurance Requirements

The product was designed to satisfy relevant Australian Standards such as AS3500 as well as Occupational Health and Safety regulations for such a device with its intended application.

Each unit is thoroughly tested using a checklist post manufacture to ensure all connecting parts fit snugly and all moving parts operate correctly. Where the manufacturer also installs the fittings, a second quality control check is performed to ensure there are no leaks and that the moving parts function in situ as intended.

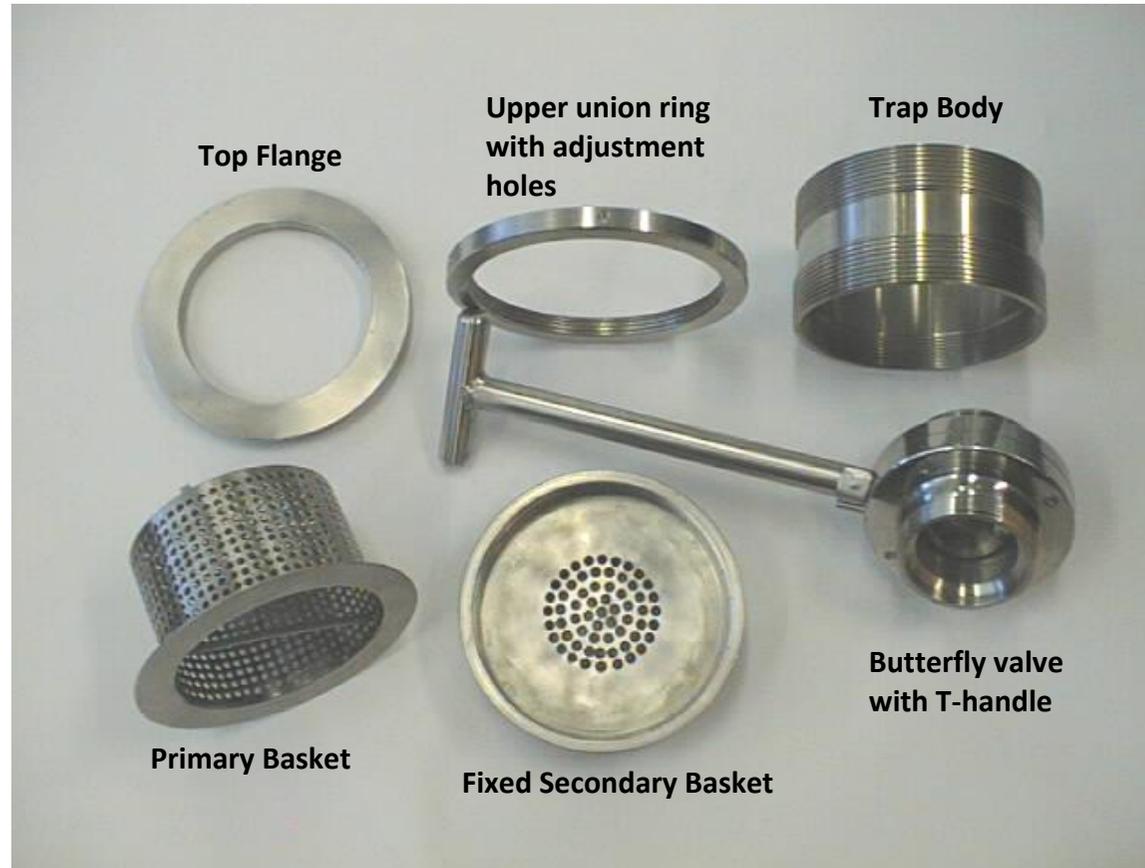
Appendix 3 – Evidence of Compliance to Design Requirements

Sufficient technical details are provided in the body of this application and in the appended drawings to demonstrate compliance with WSA-PS-840. The fittings were also approved by the Sydney Water Product Authorisation Committee in 2006 and no changes have been made to the design or materials since that time and both models are still approved.

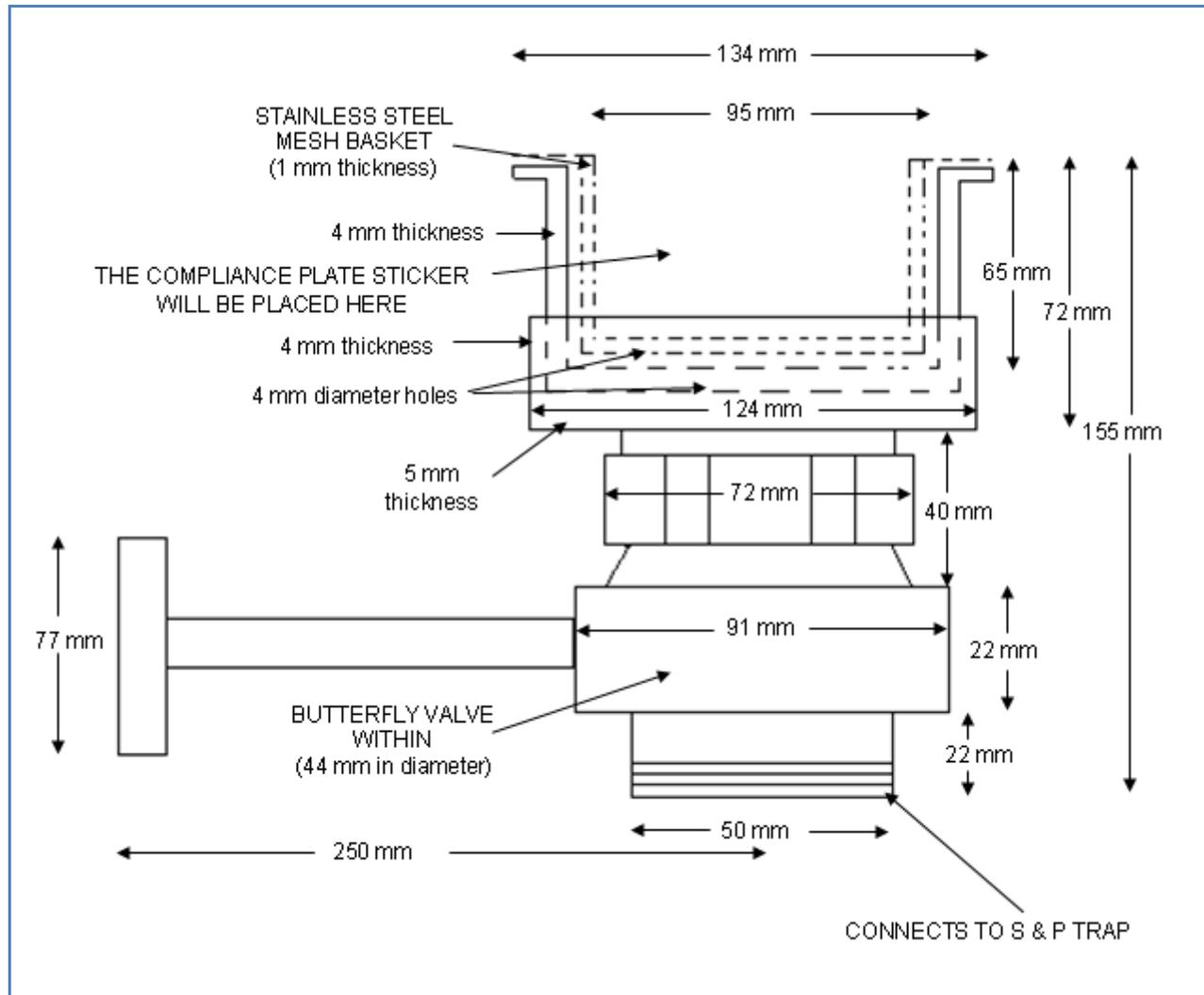
Appendix 4 – Specifications and Drawings

Please note data below

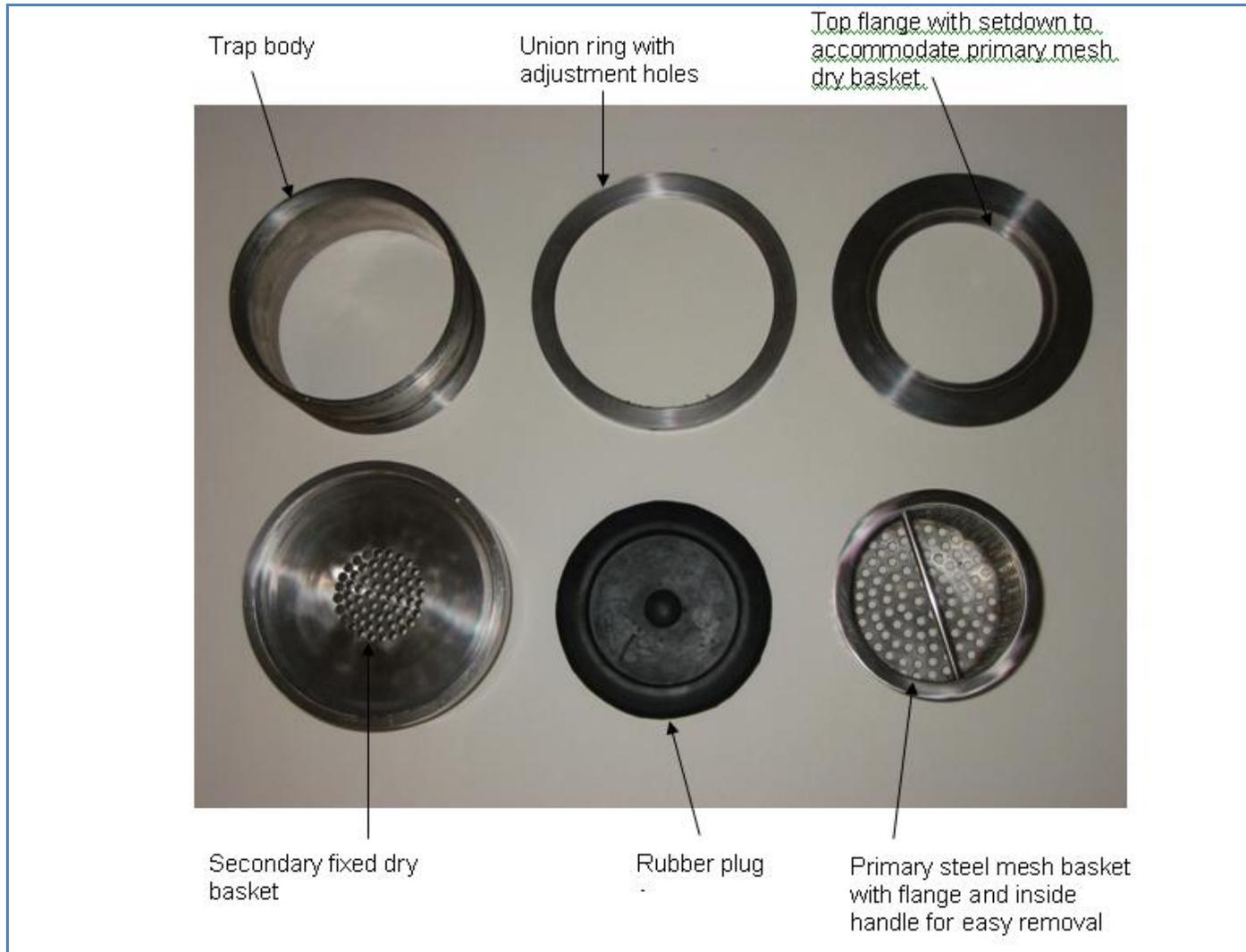
Model SA001 – Exploded components photo



Model SA-001 Dimensioned component diagram



Model SA002 – Exploded components photo



Model SA-002 Dimensioned component diagram

