

# 20 LITRE CLOSED CIRCUIT SAMPLER

- ◆ FULL VISUAL AVIATION FUEL CHECKING IN A CLOSED SYSTEM
- ◆ INCREASED CAPACITY FOR LARGER VOLUME OR COMPOSITE SAMPLES
- ◆ NO FUEL SPILLAGE
- ◆ EASY DETECTION OF DIRT AND WATER
- ◆ NO SAMPLE CONTAMINATION
- ◆ EASY TO CLEAN
- ◆ DIRECT DRAINAGE UNDER GRAVITY
- ◆ WATER DETECTION, DENSITY AND TEMPERATURE CHECK OPTIONS
- ◆ COMPACT 7 LITRE MODEL NOW AVAILABLE



## Introduction

Since its introduction in 1982 the Aljac 4 Litre Closed Circuit Sampler has displaced the traditional open bucket or glass jar method of carrying out the 'clear and bright' quality check on aviation fuel.

But although a 4 Litre sample is ideal for refuelling vehicles where single point samples are taken via short small bore sample lines, a larger sample is needed where the pipework volume would be flushed into a bucket prior to the glass jar sample, or where composite samples are required. The sampling of multi compartment road tankers or rail tank cars, or medium capacity storage tanks are typical examples, so we developed our 20 Litre Closed Circuit Sampler (CCS) which retains all of the novel features of the 4 Litre unit.

## Description and Operation

The Aljac 20 Litre CCS consists of a clear glass tube fitted to a white epoxy coated conical base to assist in the detection of dirt and water, and with a hinged vented cover. The base incorporates a tangential inlet port, and a close coupled Stainless Steel drain valve. For our 20 Litre CCS we recommend that the inlet port is connected to the sample points using 20mm diameter pipework to

maximise the flow rate, and that the filling operation is controlled using a 3/4 inch spring close valve. The drain port should be connected to the depot product recovery system or storage tank using 40mm diameter pipework. The 20 Litre CCS should ideally be located to allow gravity drainage, but if not, we can supply a semi rotary pump and non return valve to drain the CCS.

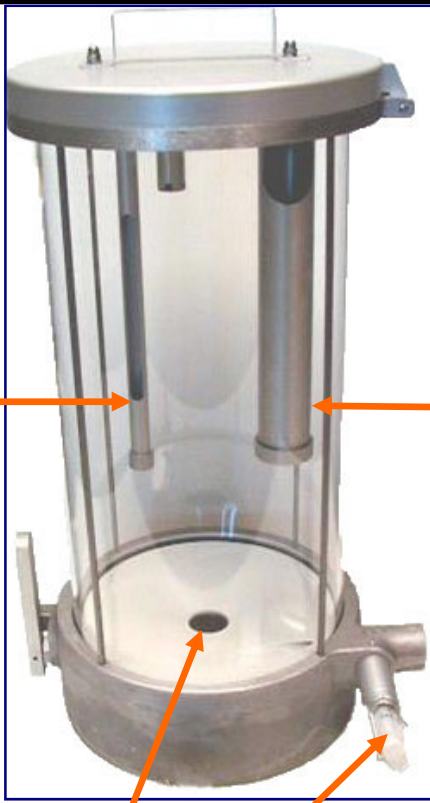
When fuel is drawn into the CCS under pressure the tangential inlet port promotes vortexing of the incoming fuel. This concentrates any contamination in the centre of the base, and makes detection very easy. The integral drain valve is opened to release the sample after completion of the visual inspection. Access for internal cleaning is easily accomplished by opening the hinged lid.

Hydrometer and thermometer tubes for density and temperature checks can be provided in conjunction with a removable inner lid. The Shell Water Detector or Velcon Hydrokit test can either be fitted to the inner lid (internal), or to a self sealing valve in the inlet port (external). By popular request we have also now developed the shorter 7 litre version of the CCS.

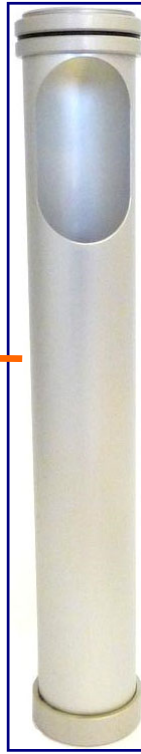
**Options**



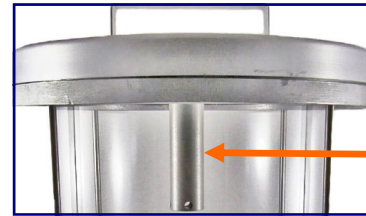
Thermometer Tube.  
Part Number: **6007233167**  
(20 litre only).



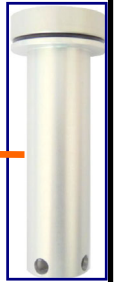
External SWD Fitting. Part Number: **6007233214**



Hydrometer Tube.  
Part Number: **600723316**  
(20 litre only).



Internal Shell Water Detector Fitting with Drop Tube.  
Part Number: **6007233185**



Internal Shell Water Detector Fitting.  
Part Number: **6007233168**

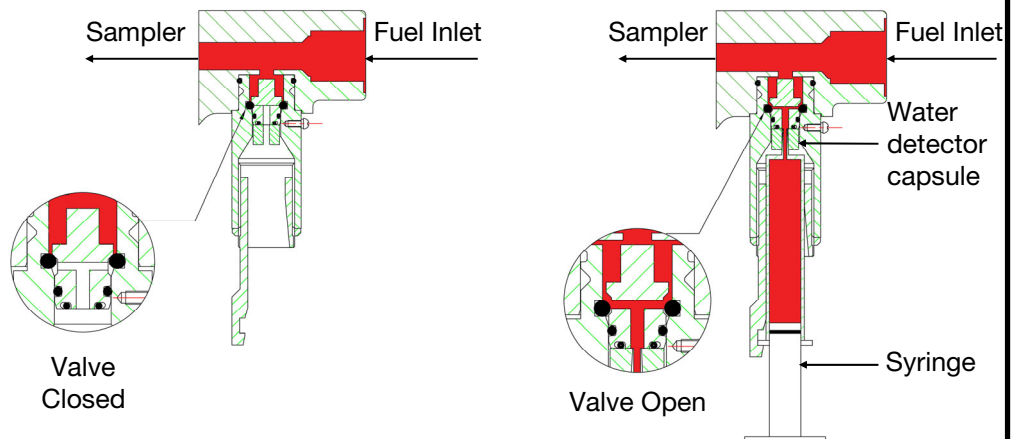


Capsule Catcher. Part Number: **6007263217**. Prevents a Shell Water Detector capsule which has been dropped into the sampler from passing into the drain pipework. It does so without disrupting the vortex flow pattern of fuel entering the sampler, and also allows the sampler internals to be easily cleaned.  
**NOTE.** The Capsule Catcher is not fitted as standard and must be specified. It can be retrofitted to existing Aljac 20 Litre or 7 Litre Samplers but the Drain Valve must be disassembled in order to do so.

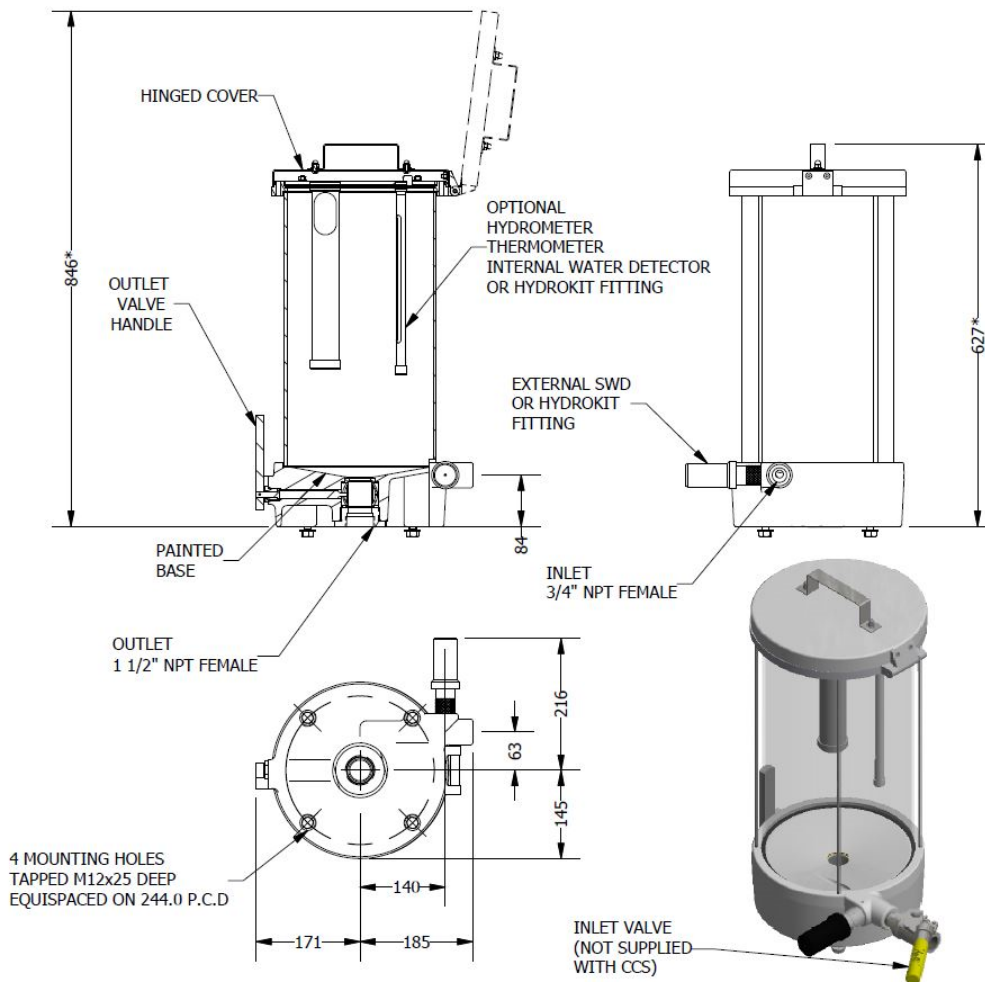
**External Shell Water Detector Fitting Operation**

The External SWD fitting allows the SWD test to be carried out without opening the sampler lid and so exposing the fuel sample to possible contamination. The External SWD is fitted to the inlet connection of the sampler and incorporates a piston valve. When the assembled syringe/capsule is inserted into the External SWD Fitting the action of doing so causes the front face of the capsule to push open the piston valve, and allows fuel to flow to the capsule, as shown below. The syringe can then be operated as normal to draw fuel through the capsule.

External Shell Water Detector Fitting.  
Part Number: **6007233214**.



## General Arrangement Drawing



### ALJAC 20L CLOSED CIRCUIT SAMPLER (CCS)

(DIMENSIONS SHOWN THUS \* ARE APPROXIMATE ONLY)

## Detailed Specification

**Working Capacity:** 7 Litres or 20 Litres.

**Materials:** Toughened glass tube, cast Aluminium base and upper section, base white epoxy lined internally.

**Connections:** Inlet 3/4 inch NPT female threaded, outlet 1.1/2 inch NPT female threaded.

**Mounting Holes:** 4 holes M12 female threaded on 244 mm P.C.D.

**Overall Dimensions:**

**Height Lid Closed:** 20L 627mm, 7L 332mm.

**Height Lid Open:** 20L 850mm, 7L 555mm.

**Width:** (7L and 20L) 356mm.

**Depth:** (7L and 20L) 361mm (with external Shell Water Detector or Velcon Hydrokit fitted).

**Nett Weight Empty:** 20L-15 kg, 7L-14 kg.

## Standards

The equipment has been subjected to a full risk assessment which included the requirements of the EC directives and harmonised standards. In accordance with European legislation, it has been concluded that the equipment should not carry a CE mark.

## How To Order

Contact our Sales Department and quote the relevant part numbers.

Description	Part Number
Basic Model (20 litre)	6007263001
Basic Model + Internal Velcon Hydrokit Fitting	6007263002
Basic Model + Internal Shell Water Detector Fitting	6007263003
Basic Model + Internal Velcon Hydrokit Fitting + Hydrometer and Thermometer Tubes	6007263004
Basic Model + Internal Shell Water Detector Fitting + Hydrometer and Thermometer Tubes	6007263005
Basic Model + Hydrometer and Thermometer Tubes	6007263016
Basic Model (7 litre)	6007263021
Additional External Shell Water Detector Fitting	6007233214
Additional External Velcon Hydrokit Fitting	6007233206
Additional Capsule Catcher	6007263217
Additional 3/4 inch Apollo Spring Close Fill Valve	0607650401