

Spare parts/accessories

	BOTTLE	HEAD/BOSS	JET/TUBE PACK	PRESSURE REGULATOR	HOSE CONNECTOR PACK
AFB	ADS-BTL	AFB-HBA	N/A	CONTACT US	AFB-BTP

	BOTTLE	HEAD/BOSS	JET/TUBE PACK	PRESSURE REGULATOR	HOSE CONNECTOR PACK
ADS	ADS-BTL	ADS-HBA	ADS-JTP	AD-PR	CONTACT US

	BOTTLE	HEAD/BOSS	JET/TUBE PACK	PRESSURE REGULATOR	HOSE CONNECTOR PACK
ADSH	ADS-BTL	ADSH-HBA	ADSH-JTP	AD-PR	CONTACT US

Contact our sales department or purchase from our website shop.

Where water pressure can exceed 3.0 bar a pressure regulator must be fitted. AD-PR will ensure the correct inlet pressure.



Safety advice

Trapped air is dangerous, always ensure there is no air trapped in the bottle or hoses. Always ensure local water regulations are observed if connecting to drinking water supplies. Avoid leaving the unit operational for long periods in strong sunlight. Protect the dilutor from frost. Always observe fertiliser manufacturers instructions. Never operate the dilutor at pressures in excess of 3.0 bar. Never use ‘trigger’ type on/off valves as turning valves on and off very quickly can create pressure waves that burst the dilutor bottle. Additional information is available on our website - [www.access-irrigation.co.uk](http://www.access-irrigation.co.uk)

Access Irrigation Ltd  
Crick, Northampton, NN6 7XS  
(01788) 823811  
[sales@access-irrigation.co.uk](mailto:sales@access-irrigation.co.uk)

Access **Feeder/Dilutor** Range  
Static



Specification
Code: <b>AFB</b>
Capacity: 9 litres
Flow rate: 1-100l/h
Non adjustable



Specification
Code: <b>ADS</b>
Capacity: 9 litres
Flow rate: 300 – 2,300 l/h
Jets: 100:1, 50:1, 25:1, 10:1



Specification
Code: <b>ADSH</b>
Capacity: 9 litres
Flow rate: 1,100 – 6,800 l/h
Jets: 200:1, 100:1, 50:1

What’s in the box?

- Plastic bottle.
- Bag containing, instructions, spare boss ‘O’ ring, label.
- Specific model bag containing, head/boss, connection fittings, jets.

Specific model instructions

Feeder model



Dilutor model



## AFB Feeder

### Getting started

Select black barbed fittings to suit system pipework, push the plain end securely into the inlet/outlet of head (no jet fitted on this model).



## Operating instructions

### 1 Remove head/boss assembly

Unplug supply pipes using tool supplied (1a).  
Unscrew head/boss anti-clockwise (1b).



### 2 Put fertilizer into empty bottle (2)

Top up bottle to **brim** with plain water.  
Ensure fertilizer is well mixed.



### 3 Replace head/boss assembly

Ensure downtube is not kinked (3).  
Hand tighten ensuring 'O' ring is in place.  
Connect supply pipes ensuring flow is as arrow on head.



### 4 Slowly turn on the water supply

Ensure outlet pipes are not kinked **before** turning on.

### 5 Top ups

The fertilizer will eventually dilute and become ineffective so add additional fertilizer regularly as required.



## TROUBLESHOOTING

The Access range of static Feeders/Dilutors provide a simple and cost effective solution to plant feeding. With no moving parts there are also limited things to go wrong. If you are having problems follow our the troubleshooting checklist below:

### Feeder/Dilutor not working

1. Is the tube/jet fitted correctly or blocked?
2. Is the fertilizer fully dissolved?
3. Is the direction of flow as the head indicates?
4. Is the water flow between its specified min/max range?

### The following points apply to Dilutors only:

1. Was the bottle filled to the brim?
2. Is the fertiliser denser than water? (1 litre must weigh more than 1kg)
3. Has the bottle been moved or been left overnight?

### Bottle leaks water

If water is weeping from the relief valve then the pressure is **too high**. Reduce the supply pressure or fit a pressure regulator (**AD-PR**) to the dilutor. Ensure the water supply pressure is 3.0 bar or below at all times.

If the bottle itself is leaking, it has been over-pressurised and needs replacing.

If the dilutor is leaking at the boss. Remove head/boss assembly check condition of the 'O' ring (refit or replace) and re-tighten securely.

### Problem fertilizers

Before purchasing, check with the fertiliser manufacturer to ensure that the fertiliser will fully dissolve at the concentration you require (eg 50:1), as it is sometimes difficult to get crystalline fertilizers to fully dissolve at the higher concentration rates.

Make sure that the fertilizer is denser than water (1 litre must weigh more than 1kg)

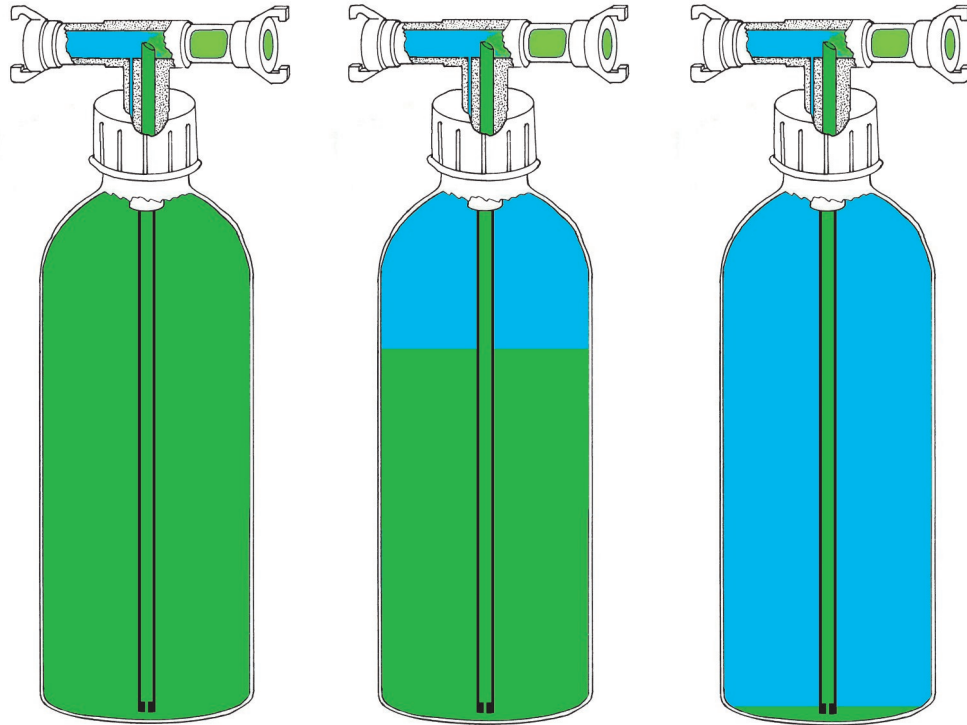
### Light coloured fertilizers

To see what the water should look like when it comes out of the dilutor, take some of the concentrated fertilizer and dilute it (50 times if using the 50:1 jet). If the colour is too light to see, add a colouring agent to the concentrated fertilizer. Food dye often makes a good colouring agent.

### End of season care

At the end of the season disconnect the feeder/dilutor from any supply pipes, remove head and jet if fitted and flush with plain water. Flush out bottle thoroughly and store in a frost free environment.

# ADS & ADSH Operation details



## How the dilutor works

The dilutor consists of a strong plastic bottle and a metering head with venturi. As the water flows past the venturi, concentrated fertilizer is drawn up into the water flow. A metering jet regulates the dilution ratio. Very little pressure is lost during operation.

As concentrated fertilizer is removed from the bottle, plain water enters to replace it. As this is less dense than the concentrated fertilizer it will sit on top. The division between the concentrated fertilizer and the plain water should be visible through the side of the bottle.

To save wasting fertilizer, choose a jet ratio appropriate to the amount of feeding required as the dilutor must not be moved once started or left overnight.

## How the feeder works

The Feeder consists of a strong plastic container fitted with a head/boss assembly which has an inlet and outlet designed for small bore piping. The head/boss is removed for filling purposes. The hanging basket system is attached to the inlet and outlet, using the barbed adaptors supplied. The bottle is filled with a solution of water and liquid feed, or water with fertilizer tablets added. The feed is slowly taken up into the water to the hanging baskets and the bottle will eventually contain plain water. The time for the bottle to be emptied of feed depends on the number of baskets and watering time. Add more fertilizer to the Feeder every 2 weeks or weekly as the season advances. This model is intended for feeding baskets using low-flow **dripper** systems only (100l/h max). Access manufactures a range of Dilutors for higher flow drip systems and other feeding purposes.

## Making up the concentrated fertilizer

Where the manufacturer of the fertilizer gives a recommendation of the number of tablets or volume of liquid required per basket, calculate the total needed for the number of baskets you have and put this in the Feeder. Fill to the brim with water and screw on the black cap. Shake or rock the bottle to mix.

Where the fertilizer manufacturer just gives a dilution rate, put into the Feeder the required amount of fertilizer for 9 litres/2 gallons - the volume of the Feeder. Fill to the brim with water and screw on the black cap. Shake or rock the bottle to mix.

## First filling

Unscrew the head/boss put the fertilizer into the empty bottle. Top up if necessary with plain water.

## Subsequent fillings

Every week/fortnight simply add the same number of tablets/volume of fertilizer as for the first filling. Ensure the water supply is turned off, remove the pipes, then unscrew the centre top cap and drop in the tablets. If using liquid feed, tip out roughly the same amount of water as you need to add fertilizer, add then top up if necessary with plain water.

## Fitting optional ½" hose adaptor kit

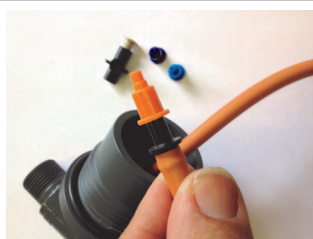
Unscrew the black cap fitted to the feeder head on the inlet side only. Slowly withdraw the fitted tube. Take the brass fitting/tube assembly and bend over the last 20mm of the fitted tube, feed this end into the tee and release the end. Feed the rest of the tube into the bottle and screw on the brass fitting. Remove the outlet side black cap and fit the remaining brass fitting ensuring the blue seal is fitted. Firmly hand tight should be sufficient. These will take brass or plastic 'snap-on' fittings. Access can supply brass hose connectors if required code: FQCBH2.



# ADS & ADSH Dilutor

## Getting started

Fit the brass hose connections to the head.  
Fit orange downtube onto grey downtube in boss.  
Fit the black barbed connector onto end of orange downtube, select and push on coloured jet securely.  
(10:1 Grey jet requires additional black adaptor)



## Operating instructions

### 1 Remove head/boss assembly (1)

Disconnect supply hoses if fitted.  
Unscrew head/boss anti-clockwise.

### 2 Put fertilizer into empty bottle (2)

Bottle must be filled to **brim**.  
Ensure fertilizer is well mixed.

### 3 Replace head/boss assembly (3)

Ensure downtube/jet is secure and not kinked. Securely hand tighten ensuring 'O' ring is in place. Connect supply hoses ensuring flow is as arrow on head.

### 4 Slowly turn on the water supply

Ensure supply hoses are not kinked and any downstream valves are open **before** turning water supply on.

### 5 Whilst feeding

The concentrated fertilizer level will slowly drop. Do not move/disturb the bottle whilst feeding or leave filled overnight.

### 6 When feeding has finished

Disconnect the supply pipes from the Dilutor. Empty bottle and flush out all residue with clean water.



## Making up the concentrated fertilizer

Jet colour	%	Ratio	Make fertilizer concentrate:	This Jet will add fertilizer to:	For use with:
Black	0.5%	200:1	200 times stronger	1740 litres of water	ADSH
Yellow or Purple	1%	100:1	100 times stronger	870 litres of water	ADS / ADSH
Olive or Light Blue	2%	50:1	50 times stronger	435 litres of water	ADS / ADSH
Dark Blue	4%	25:1	25 times stronger	218 litres of water	ADS
Grey	10%	10:1	10 times stronger	87 litres of water	ADS

### In bottle method

To make the fertilizer concentrate in the bottle (nominal capacity 9 litres), the following calculation must be made:

**Manufacturers final application rate per litre x Jet size x 9**

For example, if the fertilizer instructions state 'add 0.5ml to 1 litre of water' and the 50:1 jet (fertilizer concentrate 50x stronger) is being used, the amount of concentrated fertilizer to add would be:

$$\frac{0.5\text{ml}}{1 \text{ litre}} \times 50 \times 9 = 225\text{ml}$$

Put the 225ml of concentrated fertilizer into the bottle, fill to the brim with plain water and ensure the contents are well mixed.

### Stock solution method

To make up a stock solution the calculation is the same, but instead of multiplying by 9 (nominal capacity) multiply by the amount of stock solution required. To make 25 litres of stock solution the calculation would be:

$$\frac{0.5\text{ml}}{1 \text{ litre}} \times 50 \times 25 = 625\text{ml}$$

Make up the remainder of the 25 litres with plain water. Using this method the dilutor would be filled with the stock solution.

### Stock solution method - commercial fertilizers

Commercial fertilizer manufacturers usually tell you to make up a stock solution by, for example, dissolving 1kg in 10 litres, then applying this to the plants at 200:1, 100:1, etc. Make up this stock solution and then use the table below to indicate how many litres of concentrated feed to put in the bottle. Fill the remainder of the bottle with plain water and ensure the contents are well mixed.

Stock strength	200:1 Jet	100:1 Jet	50:1 Jet	25:1 Jet	10:1 Jet
100:1	—	Full	4.35	2.18	0.87
200:1	Full	4.35	2.18	1.09	0.44
250:1	6.96	3.48	1.74	0.87	0.35
500:1	3.48	1.74	0.87	0.44	0.17