

# Penguin Pro Instruction Sheet

## Package contents:

1. Penguin Pro dispenser
2. Pick up tube assembly
3. Discharge tube for eductor
4. Accessory Kit
5. Hook for discharge tube – High Flow only
6. Label pack

## Installation and Operation:

1. Attach the dispenser to the wall using one of two methods.  
Method 1: Mount the bracket to the wall using the two screws and wall anchors. (Fig.16) Remove cabinet cover (fig.13) and using the dispenser as a template slide it onto the mounting bracket and mark out the third hole. Drill the third hole and fix the dispenser to the wall.  
Method 2: Mount the bracket and use double sided tape for the lower cabinet fixing. N.B. Do not mount the dispenser more than 1.8 metres above the chemical container and never mount the chemical higher than the dispenser.
2. Remove the temporary blanking plugs (fig.22) from the dispenser water valve (fig.23), identify the position of the water inlet supply and install the water inlet swivel stem (fig.17) into the valve ensuring a water tight seal. If you are only installing one dispenser fit the remaining 3/8" blanking plug (fig.18) into the other side of the water valve. N.B. When installing more than one dispenser fit the 3/8" pipe nipple (fig.19) between the two water valves ensuring a water tight seal.
3. Select a metering tip (see table) and insert into hose barb (fig.4) on eductor body. (Repeat for all eductors.)
4. Feed the pick up tube assembly (fig.9) through one of the allocated holes in the cabinetry and push the hose over the hose barb on the eductor assembly.(fig.3)
5. Place foot valve ends of the pick up assembly into chemical containers.

### **N.B. Install the correct foot valve (Fig.20) for the product to be used.**

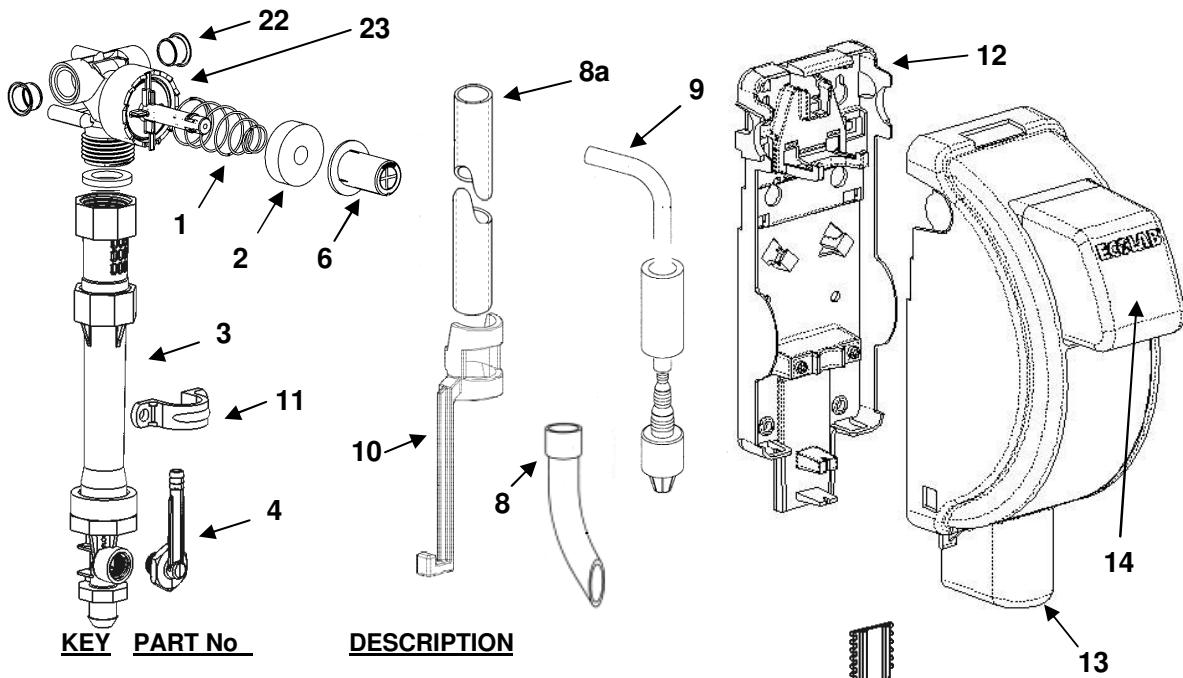
**Grey strainer cap = Viton (fitted as standard) Blue strainer cap = EP (Desguard)**

**Check foot valve strainers periodically for debris and clean as necessary.**

6. Use the short discharge tube (Fig.8) for the grey 4 LPM eductor and the longer discharge tube (Fig.8a) for the blue 14 LPM eductor. Do not remove the flooding rings from inside the tubes. Slide end of tube with flooding ring over eductor discharge outlet. Utilise the hose hook (Fig.10) for the longer tube to allow the discharge tube to hang conveniently when not in use.
7. Replace cabinet cover (Fig.13).
8. Connect water supply hose of at least 13mm ID to water inlet. (Minimum 1.76 bar pressure, with water running, is required for correct operation.) Connect opposite end of hose to water supply. Turn water supply on.
9. Purge air from system by depressing the button (Fig.14) briefly.
10. Push button to prime the system ensuring chemical feed tube is full. Then push the button whenever dispensing is required, and release the button to stop flow of solution. If you wish to be able to lock the button in the "on" position: Remove the locking button stroke limiter located on the inside of the front cover. (See diagram)



This allows the button to be fully depressed and allows it to latch in the "on" position. To unlock, apply pressure upwards and pull the button out.



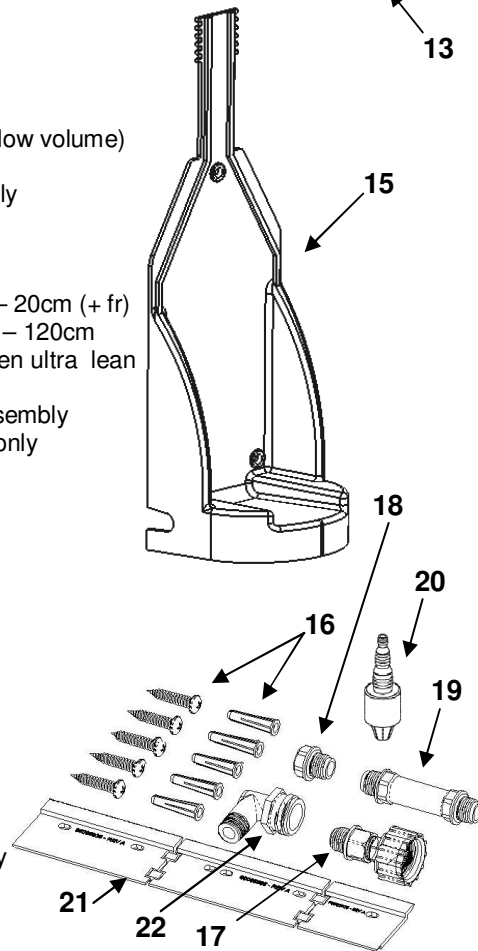
**KEY PART No**

**DESCRIPTION**

1	10079010	Spring
2	10079000	Magnet
3	10088891	Low flow eductor assembly (low volume)
	10088877	High flow eductor assembly
4	90085931	Extended hose barb assembly
5	238100	Strainer washer
6	90085911	Locking button limiter
7	10075980	Valve parts kit
8	90085993	4 LPM Grey discharge tube – 20cm (+ fr)
8a	90087288	14 LPM Blue discharge tube – 120cm
•	90089473	Metering tip kit with olive green ultra lean
9	90040015	Transparent pick up tube assembly
10	10080737	Hose hook blue – High flow only
11	10065310	Conduit clamp
12	90085905	Cabinet back
13	90085906	Cabinet front
14	90085907	Button
15	90085920	Bottle shelf - Low flow only
16		

**ACCESSORY KIT**

	90086728	14 ltr per min accessory kit
	90085783	4 Ltr per min accessory kit
16		Screws and wall plugs
17		3/8" water inlet swivel stem
18		3/8" blanking plug
19		3/8" pipe nipple
20		EP foot valve – Low flow only
21		27cm wall mounting bracket
22		90 degree water inlet





**Metering Tip Selection:**

The final concentration of the dispensed solution is related to both the size of the metering tip opening and the viscosity of the liquid product being siphoned. For water-thin products, the chart below can be used as a guideline. If the product is noticeably thicker than water, consult the Measurement of Concentration Procedure below to achieve your desired water-to-product ratio. Because dilution can vary with water temperature and pressure, actual dilution achieved can only be ascertained by using the Measurement of Concentration Procedure. The clear, undrilled tip is provided to permit drilling to size not listed should you need a dilution ratio that falls between standard tip sizes.

Note: A 4 LPM eductor is grey; a 14 LPM eductor is blue\* (\*yellow = old version.) Please refer to parts diagram if unfamiliar with names of system components.

**Measurement of Concentration:**

You can determine the dispensed water-to-product ratio for any metering tip size and product viscosity. All that is required is to operate the primed dispenser for a minute or so and note two things: the amount of dispensed solution and the amount of concentrate used in preparation of the solution dispensed. The water-to-product ratio is then calculated as follows:

$$\text{Dilution ratio (X: 1) where X} = \frac{\text{Amount of mixed solution} - \text{Amount of concentrate drawn}}{\text{Amount of concentrate drawn}}$$

$$\text{Dilution ratio (\%)} \text{ where X} = \frac{\text{Amount of concentrate drawn} \times 100}{\text{Amount of mixed solution}}$$

If the test does not yield the desired ratio, choose a different tip and repeat the test. An alternative method to this test is titration. Contact your concentrate supplier for further information on this alternative method and the materials required to perform it.

<b>Penguin Pro Low/High 4/14 Litres per minute</b>					
Approximate dilutions @2.67 bar (40 P.S.I.) for water-thin products (1.0 CP)					
Tip colour	Orifice size	SP 6347		SP6348	
		ratio	%	ratio	%
No Tip	0.187	2:1	33	3:1	25
Grey	0.128	3:1	25	3:1	25
Black	0.098	3:1	25	4:1	20
Beige	0.070	4:1	20	8:1	11
Red	0.052	6:1	14	14:1	7
White	0.043	8:1	11	20:1	5
Blue	0.040	9:1	10	24:1	4
Tan	0.035	12:1	8	30:1	3
Green	0.028	20:1	5	45:1	2
Orange	0.025	26:1	3.7	56:1	1.7
Brown	0.023	32:1	3	64:1	1.5
Yellow	0.020	42:1	2.3	90:1	1.09
Aqua	0.018	50:1	1.9	128:1	0.8
Purple	0.014	64:1	1.5	180:1	0.5
Pink	0.010	128:1	0.8	350:1	0.284
Ultra lean tip					
Olive	0.008	163:1	0.60	626:1	0.159
Minimum working pressure 1.76 bar/25 P.S.I.					
Maximum working pressure 5.86 bar/85 P.S.I.					

**TROUBLESHOOTING CHART:**

Problem	Cause	Solution
1. No discharge	a. No water b. Magnetic valve not functioning c. Excessive water pressure d. Eductor clogged	a. Open water supply b. Install valve parts kit c. Install regulator if water pressure exceeds 6 bar d. Clean or replace
2. No concentrate draw	a. Clogged foot valve b. Metering tip or eductor has scale build-up c. Low water pressure d. Discharge tube and/or flooding ring not in place e. Concentrate container empty f. Inlet hose barb not screwed into eductor tightly g. Clogged water inlet strainer	a. Clean or replace b. Clean or replace c. Minimum 1.76 bar (with water running) required to operate unit properly d. Push tube firmly onto eductor discharge hose barb, or replace tube if it doesn't have a flooding ring e. Replace full container f. Tighten, but do not over tighten g. Disconnect inlet water line and clean strainer
3. Excess concentrate draw	a. Metering tip not in place	a. Press correct tip firmly into barb on eductor
4. Failure of unit to turn off	a. Water valve parts dirty or defective b. Magnet doesn't fully return c. Push button stuck d. Excessive water pressure	a. Clean or replace with valve parts kit b. Make sure magnet moves freely Replace spring if short or weak c. Realign cabinet or clean grommet that button passes through d. Install regulator if pressure exceeds 6 bar

**Shipping details:**

Penguin Pro (Low flow with shelf)

Dimensions: 30cmx32cmx22cm  
 Weight: 1.46 kg  
 Euro Pallet quantity 72 to a pallet (8 to a layer/9 layers high)

Penguin Pro (High flow without shelf)

Dimensions: 30cmx32cmx22cm  
 Weight: 1.43 kg  
 Pallet quantity: 72 to a pallet (8 to a layer/9 layers high)

Penguin Special product/footvalve selection table			
VITON Footvalve 90086713  Grey cap		EPDM Footvalve 90087199  Blue cap	
Allguard 10	Assert Lemon	Desguard 20	Regain Enforcer
Floorguard Special31	Pantastic Classic	Floorguard 30	Micro Quat
Glasscare 40	Pantastic Plus	Renolit Uni	Sirafan Concentrate
Renolit Multi	Pantastic Lemon	Renolit Classic	Sirafan Perfect
Renolit Soft	Renolit Surf	Renolit	Regain
Click	Assert Fresh	Regain Plus	Regain Floor
Oxonia Active			
For products not on the list please refer to your R&D support			