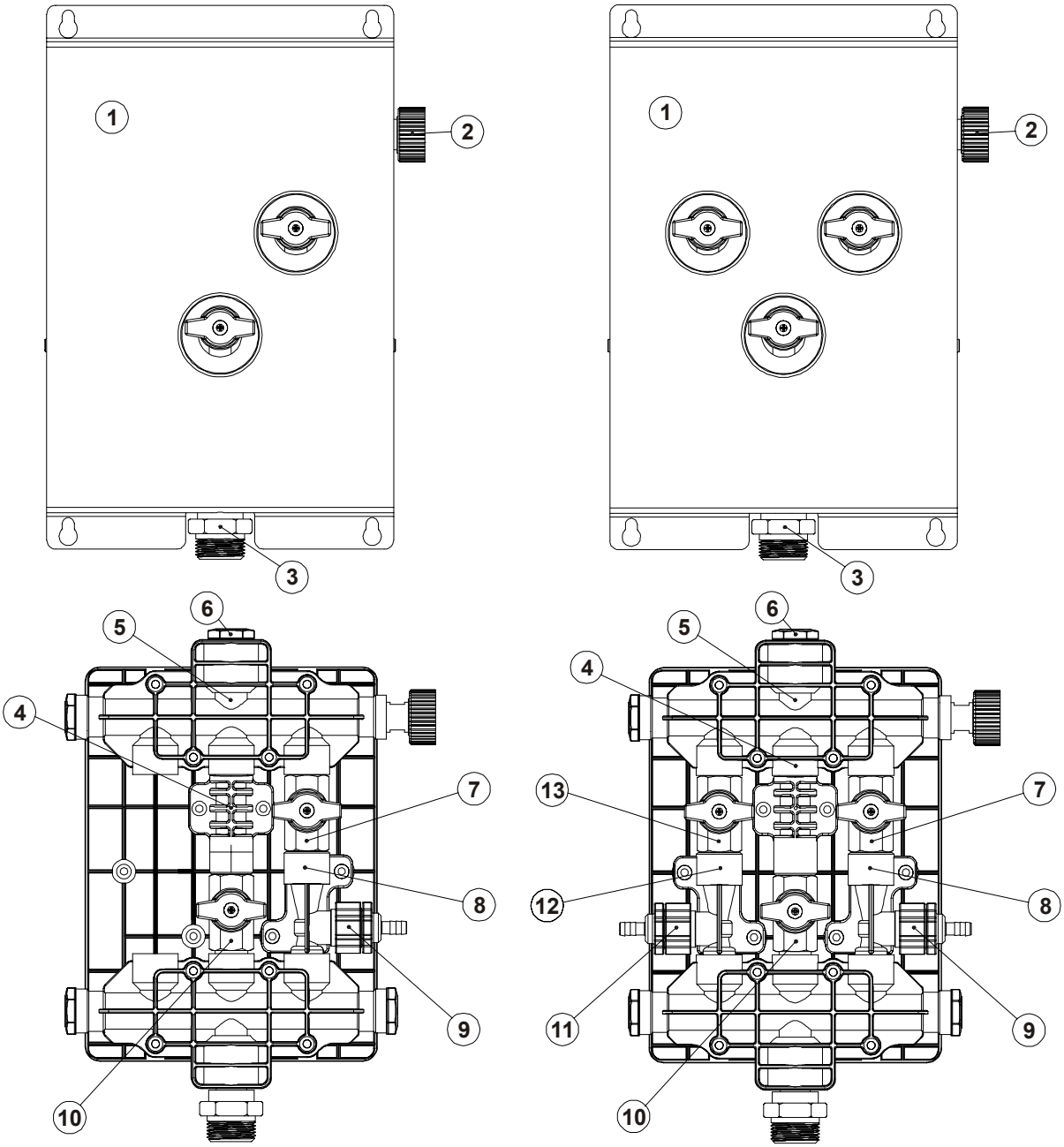
Pro Spray 1 & 2 Products



PRO SPRAY DIAGRAM

1	Front cover
2	Inlet water fitting (¾" FGHT swivel)
3	Outlet discharge hose (¾" MGHT)
4	Rinse tube
5	Ball valve connector manifold
6	Plug 3/8 gas
7	Product 1 ball valve (code 9900106694)
8	Venturi device product 1
9	Check valve product 1 (code 990071046) ¼" ID – $^{3}/_{8}$" OD
10	Rinse ball valve (code 9900106694)
11	Check valve product 2 (code 990071046) ¼" ID – $^{3}/_{8}$" OD
12	Venturi device product 2
13	Product 2 ball valve (code 9900106694)

INDICE

➲READ THE FOLLOWING BEFORE INSTALLING SERVICING THE STATION.

- Verify that the water supply pressure is between 20 and 100 PSI (1,4 - 6.9 Bar).
- Verify that the water supply temperature does not exceed 150°F (65°C).
- The plumbing fittings in the station have been tested for use with the most common liquid detergents mixed with water.
- Be sure that the detergent used is compatible with polypropylene.
- Install the station near a connection point for the water supply.
- Fit the guard to facilitate cleaning of surfaces and make the plumbing fittings accessible for replacing dilution *tips* and routine maintenance.

WARNING: Turn off water supply brfore servicing on the Pro Spray.

WARNING: Check the equipment model, when using the dosage calibration references in this manual.

➲ **The company is always striving to improve our products, and we reserve the right to make changes at any time without notice.**

➲ **Failure to abide by the standards laid down in this manual could result in personal injury or damage to property or the equipment.**

➲ **Only use hoses and spray guns suitable for use with the Pro Spray.**

➲ **The Pro Spray does not include backflow prevention devices. Where necessary install a suitable backflow preventer at the water in compliance with local standards.**

1.0 TECHNICAL FEATURES

Pro Spray provides the following flow rates (the values shown in table 1 only apply when mixing one product at a time):

	Dynamic water pressure (PSI)		
	11.6	**29.0**	**40.61**
Flow Rate (GPM)	1,79	2,76	3,30

Table 1

WARNING: Opening both the ball valves at the same time will lead to a slight reduction in the flow rate and may result in variations in the percentage of product mixed.

Proper dilution is obtained by using one of the 15 calibrated tips supplied.
The diameter of these tips decreases and they are color coded.
Table 2 indicates dilution for fluids with varying viscosities.
A degree of viscosity of **1 cps** (centipoises) is typical for water, engine oil has an average viscosity of **100 cps**, and the approximate viscosity of most detergents used for washing Pots and Pans is **500 cps**.

Tip Color	Diameter	1 cps			100 cps			500 cps		
		Oz/Gal	*gr/l*	*ratio*	*Oz/Gal*	*gr/l*	*ratio*	*Oz/Gal*	*gr/l*	*ratio*
No Tip	0.187	7,8	58,7	17 - 1	3,8	28,8	35 - 1	1,0	7,2	139 - 1
Gray	0.128	7,9	59,2	17 - 1	3,2	23,9	42 - 1	0,9	6,5	154 - 1
Black	0.098	7,5	56,2	18 - 1	2,7	20,2	50 - 1	0,9	6,4	156 - 1
Beige	0.070	7,0	52,7	19 - 1	2,5	18,9	53 - 1	0,8	6,2	161 - 1
Red	0.052	6,3	46,9	21 - 1	2,3	17,4	57 - 1	0,8	5,9	169 - 1
White	0.043	4,3	31,9	31 - 1	2,0	15,1	66 - 1	0,8	5,8	172 - 1
Blue	0.040	3,9	29,1	34 - 1	1,9	14,4	69 - 1	0,8	5,8	172 - 1
Tan	0.035	3,5	26,2	38 - 1	1,7	12,7	79 - 1	0,7	5,6	179 - 1
Green	0.028	2,1	15,7	64 - 1	1,3	9,7	103 - 1	0,5	4,0	250 - 1
Orange	0.025	2,1	15,9	63 - 1	1,1	8,6	116 - 1	0,6	4,2	238 - 1
Brown	0.023	1,7	13,1	76 - 1	1,0	7,2	139 - 1	0,5	3,7	270 - 1
Yellow	0.020	1,3	9,6	104 - 1	0,9	6,6	152 - 1	0,4	2,7	370 - 1
Aqua	0.018	1,2	9,1	110 - 1	0,8	5,7	175 - 1	0,3	2,2	455 - 1
Purple	0.014	0,5	3,6	278 - 1	0,3	2,6	385 - 1	0,1	0,8	1250 - 1
Pink	0.010	0,3	2,5	400 - 1	0,2	1,7	588 - 1	0,1	0,6	1667 - 1

Table 2 – The approximate dilution values given in this table are measured at a flow rate of 4,23 GPM and water supply pressure of 40 PSI.

The values given in the table should be considered as close approximations, as actual dilution ratio depends on variables such as water pressure, product viscosity, and the temperature of the water supply.

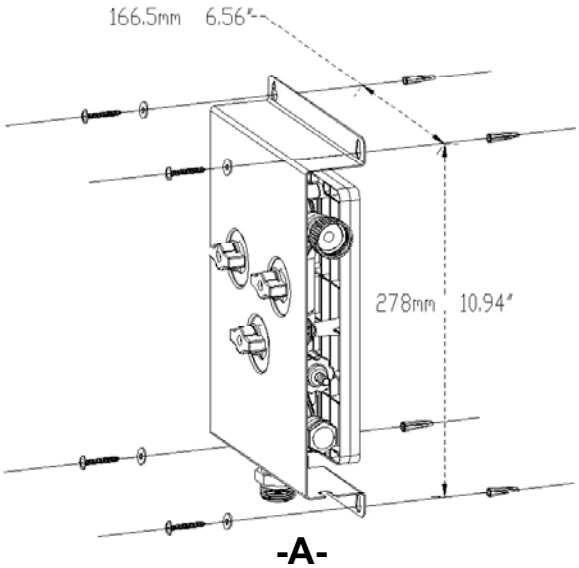
For improved accuracy, the calibration can be verified as follows:

1. Fill a graduated cylinder with the concentrated product.
2. Using the above chart, select and insert the tip closest to the desired dilution ratio.
3. Insert the pick up hose into the graduated cylinder.
4. Put the outlet tube into a open container and open the tap. Draw up the product until the pick up tube is completely filled.
5. Mark the level of the product in the graduated container.
6. Switch the tap off and insert the delivery hose in a 1 gallon (or 1 liter) container.
7. Switch the tap on again until the 1 gallon (or 1 liter) container is completely full.
8. Switch the tap off and read the quantity of product in the graduated container.
9. The difference in the product levels for points 5 and 8 indicates the amount of product mixed per gallon (or liter).

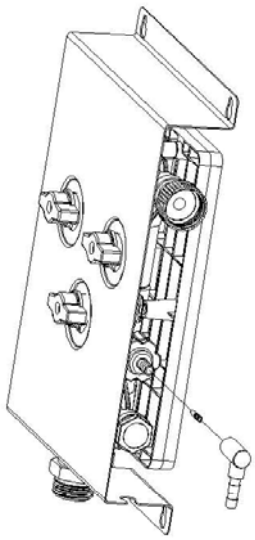
A transparent tip without an opening that can be drilled to obtain a customized ratio of dilution is included.

2.0 INSTALLATION

The Pro Spray must be installed in a position in where it can easily be connected to the water supply, with the hose bracket (optional) installed nearby.
Before mounting it in its final position, be certain that normal maintenance components are easily accessible.



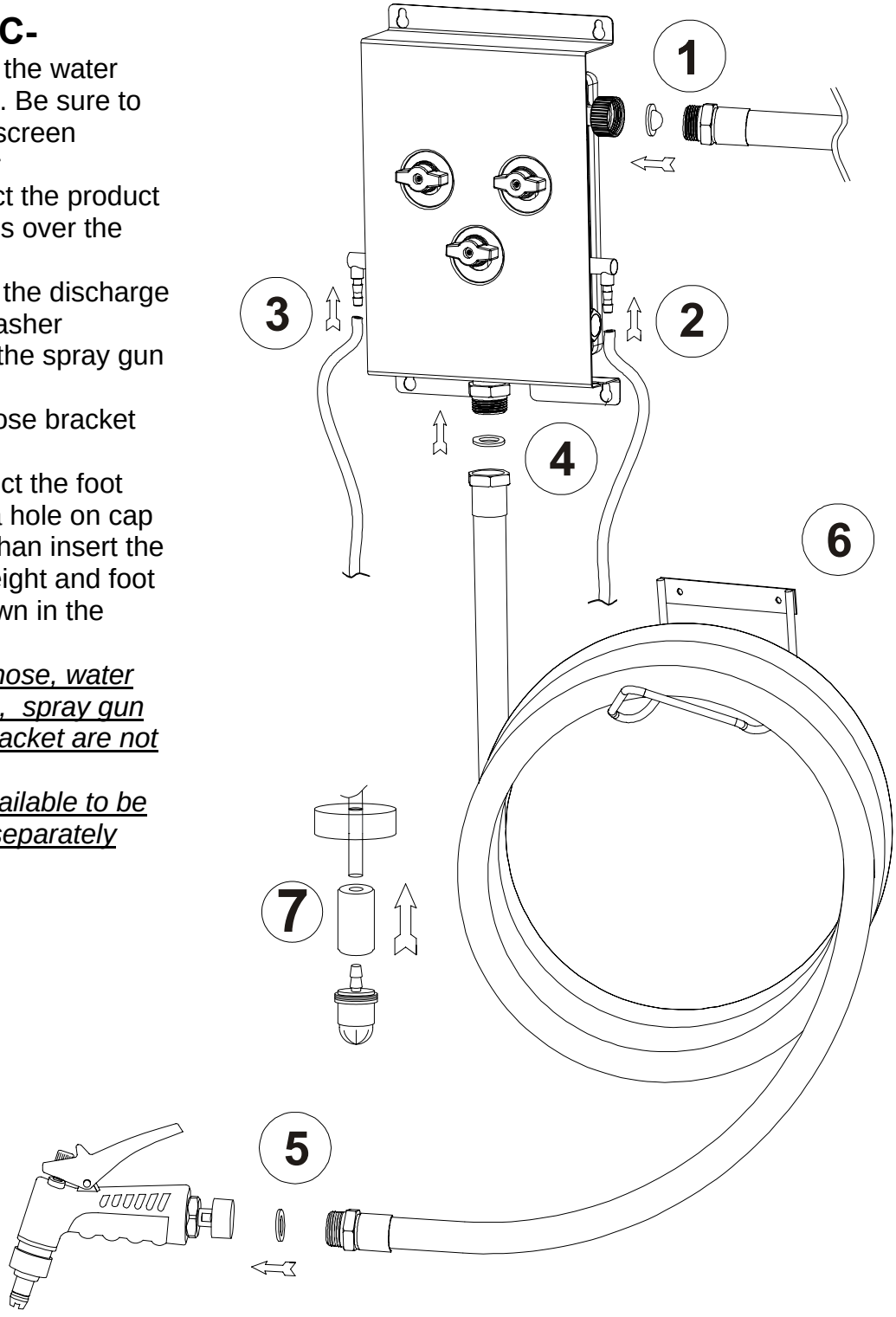
-A-
Fit the unit on the wall using the supplied wall anchors



-B-
Choose the appropriate metering tip and insert it into barb on the inlet's non-return valve then place the elbow over the barbs as show in figure

-C-

(1) Connect the water supply hose. Be sure to include the screen filter/washer
(2-3) Connect the product pick up tubes over the elbows
(4) Connect the discharge hose and washer
(5) Connect the spray gun and washer
(6) Fit the hose bracket on the wall
(7) To connect the foot filter make a hole on cap of the tank than insert the tube, the weight and foot filter as shown in the figure
The outlet hose, water supply hose, spray gun and hose bracket are not included.
They are available to be purchased separately



3.0 MAINTENANCE

- Check for buildup or debris foot filter.
- Check, and if necessary clean the screened washer at the water inlet GHT fitting.
- Periodically remove any lime build-up. To clean the Venturi properly replace the product to be mixed with a suitably diluted de-limer activater the appropriate valve to draw the product through the Venturi.

3.1 REMOVING THE SS FACING

◄1
Remove Pro Spray from wall and lay on flat surface.

◄2
Remove valve knobs and set tools aside.

◄3
Place thumbs on valve stem sand lift from the underside of the facing

◄4
Remove stainless steel facing and set aside.

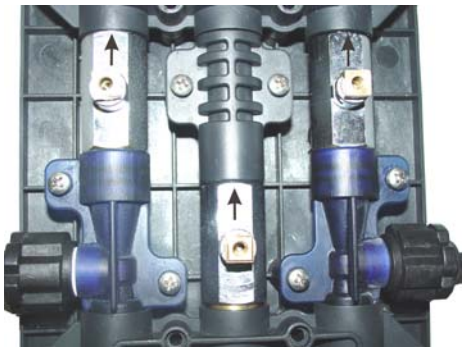
3.2 CHANGING A BALL VALVE

◄1
Take apart the upper manifold, rock the ball valve back and forth to make the manifold easier to disassemble

◄2
Take apart the lower manifold

WARNING: ***Be sure to align the manifold properly to avoid displacing "O" Ring***

◄3
Replace any component in minutes without the use of tools



◄4
Reassebling the system

WARNING: ***In the reassembling part be sure that the arrows marked on the ball valve are direct to top***

3.3 REPLACING OR CLEANING THE FIXED PARTS

◄1
Unscrew the check valve counter-clockwise being careful not to lose the O Ring

◄2
To remove the Venturi procede as shown

WARNING: ***When reassembling, don't overtighten the check valve.***

WARNING: ***When cleaning of the venturi avoid use the pointed objects as screwdriver etc. This could damage the venturi. Use a de-limer as describedabove or compressed air***

3.4 CHANCHING THE WATER INLET

◄
All manifold components snap together and are sealed with double "O" rings as pictured

◄
To change water flow direction simply rotate upper manifold and re-secure over ball valve "O" rings as pictured

WARNING: ***Be sure to align the manifold properly to avoid displacing "O" Rings.***

4.0 TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
No flow	No water supply	Open the water supply connection
The product is not mixed	The foot filter is clogged	Clean or replace the filter
	The calibration nozzle is clogged	Clean or replace the nozzle
	Insufficient water supply pressure	A minimum pressure of 20 PSI (1,4 bar) is required for correct functioning
	The product container is empty	Fill the container
	The pick up hose is not properly inserted in the nozzle holder	Push the pick up tube all the way into the tip seat.
Concentration too high	The metering tip is not fitted or it is fitted badly	Insert the tip in the tip holder properly
Water fills the chemical's container.	Check valve clogged	Clean or replace the check valve.
Water loss	Wrong position of o-ring	Change it
Incorrect concentration	Wrong tip	Change it (see par. 1.0)