

# PRO SINK 1 and 2

## Dilution system

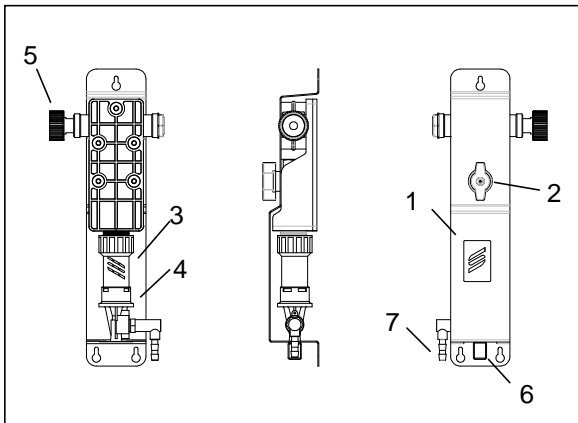


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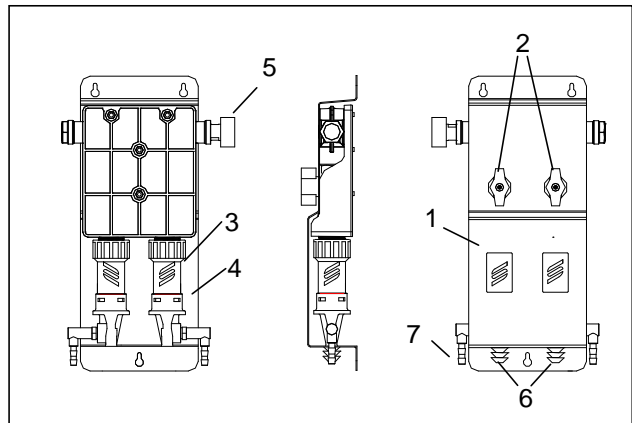
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1.0 PRODUCTS' DESCRIPTION

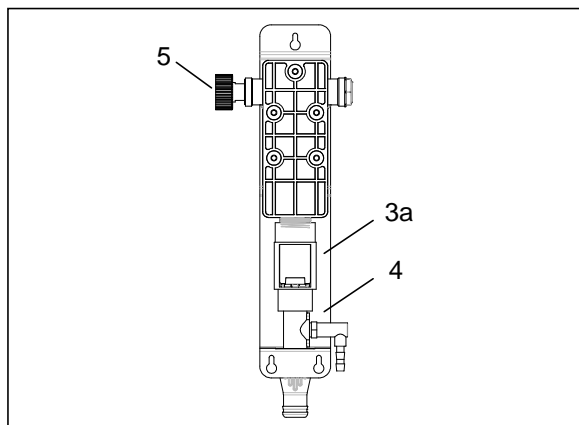
PROSINK 1 PRODUCT 4GPM (16L/MIN) FGAP (PSK1F16U1000)



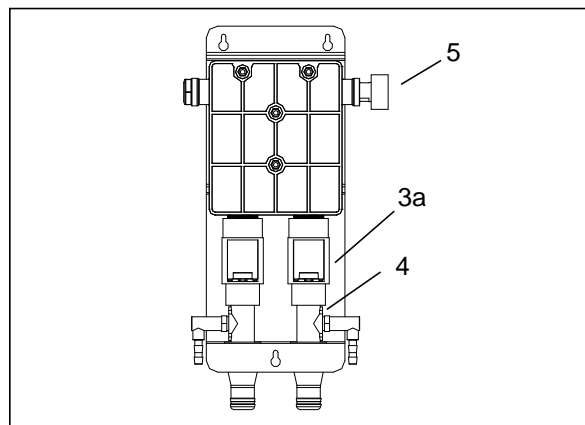
PROSINK 2 PRODUCTS 4GPM (16 L/MIN)FGAP (PSK2F16U1000)



PROSINK 1 PRODUCT 4GPM (16L/MIN) AGAP (PSK1A16U1000)



PROSINK 2 PRODUCTS 4GPM (16L/MIN) AGAP (PSK2A16U1000)



1	Satin-finish STAINLESS STEEL guard
2	Activation knob
3	F-Gap backflow preventer
3a	A-Gap backflow preventer
4	Venturi
5	3/4" GHT ring nut
6	Connection for outlet hose 1/2" ID – 3/4" OD (12x18 mm) -FGAP Connection for outlet hose 11/16" ID – 1" OD (18x25 mm) - AGAP
7	Connection for pick up hose 1/4" ID – 3/8" OD (6x9 mm)

## 2.0 WARNINGS



### READ THE FOLLOWING WARNINGS BEFORE PROCEEDING TO INSTALL OR DO MAINTENANCE WORK ON THE DILUTION UNIT

- *Optimum water supply pressure is 40 PSI (2.75 bar). Max. 100 PS (6.9 bar); Min. 20 PSI (1.4 bar)*
- *Max. temperature 140° F (60 °C)*
- Fittings have been tested for use with the most common liquid detergents mixed with water. Check that the detergent used is compatible with brass and polypropylene.
- Install the unit near a connection point for the water supply and above the sink in such a way that the activation knob is accessible.
- Mount the unit to facilitate cleaning and so the plumbing fittings are accessible for replacing metering tips and routine maintenance.



**Check the model to accurately determine the dosage calibration references indicated in this manual.**



**WARNING: Always follow the necessary safety procedures, including the use of adequate protection for the eyes, face, hands, and clothing.**



**WARNING: When installing or carrying out maintenance on this equipment, always disconnect it from the water supply.**



**Seko is constantly striving to perfect all its products and we therefore reserve the right to make changes at any time without notice.**



**Failure to follow these safety precautions could result in damage to adjacent property or injury to people, and possibly damaging the equipment or compromising its operation.**



**ASSE 1055B APPROVED CHEMICAL DISPENSING SYSTEM**

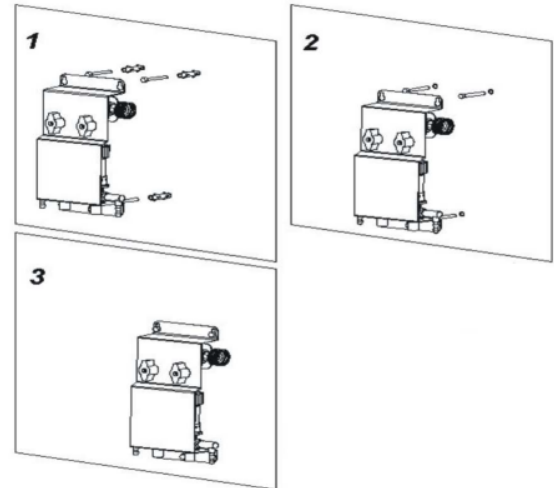


**TO PREVENT SIPHONING AND TO COMPLY WITH ASME A112.1.2, INSTALL THE PROSINK WITH THE END OF THE OUTLET TUBE A MINIMUM 4" ABOVE THE FLOOD LEVEL OF THE SINK OR OTHER FIXED CONTAINER.**

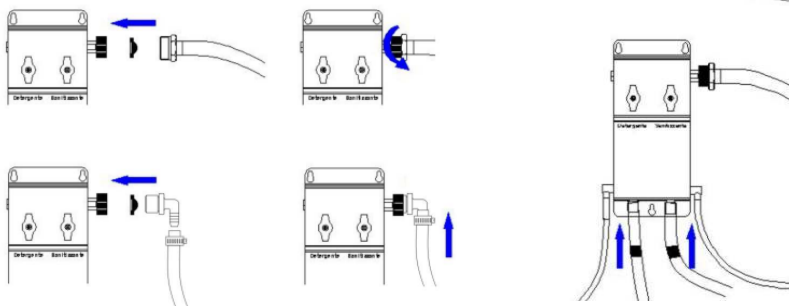
**3.0 INSTALLATION PROCEDURE**

- 1.1 Position the Pro Sink on a vertical wall and check that it is easy to operate and that it is close to a connection point for the water supply.
- 1.2 Mark the position of the slots on the wall as a guide for drilling.
- 1.3 Remove the guard from the wall and check that the drilling marks can be clearly seen.
- 1.4 Drill two 1/4" (6 mm) diameter holes at the points marked on the wall.
- 1.5 Put the anchors supplied into these holes and screw in the screws without completely tightening
- 1.6 Mount the unit and secure tightly.

Picture Layout of wall mounting



**4.0 PLUMBING CONNECTIONS**



**Note:** The water supply connection is a standard 3/4" female swivel (GHT)

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- 1.1 Insert the screened washer with the filter as illustrated above.
- 1.2 Connect the water supply hose to the female swivel on the top right of the Pro Sink.
- 1.3 Turn the swivel until the washer is securely seated onto the male threads of the supply hose.
- 1.4 Insert the calibration nozzle chosen into the barb fitting and then secure the elbow connection.
- 1.5 Install the outlet hose (1/2" ID – 3/4" OD – 12x18mm) and pick up hose (1/4" ID – 3/8" OD – 6x9mm).
- 1.6 Position the delivery hose above the sink.
- 1.7 Install the weight onto the end of the pick up tube, install the foot filter and slide the weight until flush with the foot filter.
- 1.8 Place the pick up tube into the product container.

**Warning:** The difference in height between the bottom of the product container and the Pro Sink nozzle connector must not exceed 6.6 ft (2 m)

**Warning:** The product must be below the Pro Sink to prevent siphoning.

**Warning:** The end of the delivery hose must be above the level of the product to be mixed to prevent siphoning.

**Warning:** The outlet tubes must be installed with flow restrictor rings

**5.0 TECHNICAL FEATURES**

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

<b>4 GPM</b>	<b>Dynamic pressure upstream of the PRO SINK</b>		
	11.6 PSI (0.8 bar)	29 PSI (2 bar)	40.61 PSI (2.8 bar)
<b>Flow Rate in GPM</b>	<b>2.6</b>	<b>3.6</b>	<b>4.8</b>
<b>Flow Rate in l/min</b>	<b>9.8</b>	<b>13.6</b>	<b>18.2</b>

Table 1



**WARNING: OPENING BOTH DOSING TAPS AT THE SAME TIME LEADS TO A SLIGHT REDUCTION IN THE FLOW RATE AND RESULTS IN CHANGES IN DILUTION RATE.**

The degree of dilution required can be obtained by using one of the 15 calibrated metering tips supplied. The nozzles are colors coded as below. Table 2 indicates the degree of dilution for liquids of varying viscosities. A degree of viscosity of **1 cps** (centipoise) is typical for water, engine oil has an average viscosity of **75 cps**, and the approximate viscosity of most manual detergents for pots and pans is **200 cps**.

<b>4 GPM</b>		<b>Dilution ratio for various degrees of viscosity</b>								
<b>Calibration nozzles</b>		<b>1 cps</b>			<b>75 cps</b>			<b>200 cps</b>		
		<b>Oz/Gal</b>	<b>Ratio</b>	<b>Gr/l</b>	<b>Oz/Gal</b>	<b>Ratio</b>	<b>Gr/l</b>	<b>Oz/Gal</b>	<b>Ratio</b>	<b>Gr/l</b>
<b>1</b>	<b>no tips</b>	<b>12.8</b>	10-1	100.00	<b>3.28</b>	39-1	25.64	<b>1.33</b>	96-1	10.42
<b>2</b>	<b>grey</b>	<b>11.64</b>	11-1	90.90	<b>3.05</b>	42-1	23.81	<b>1.11</b>	115-1	8.69
<b>3</b>	<b>black</b>	<b>10.67</b>	12-1	83.33	<b>2.78</b>	46-1	21.74	<b>1.08</b>	118-1	8.47
<b>4</b>	<b>beige</b>	<b>7.53</b>	17-1	58.82	<b>2.21</b>	58-1	17.24	<b>1.05</b>	122-1	8.20
<b>5</b>	<b>red</b>	<b>4.57</b>	28-1	35.71	<b>2.06</b>	62-1	16.13	<b>1.00</b>	128-1	7.81
<b>6</b>	<b>white</b>	<b>3.28</b>	39-1	25.64	<b>1.66</b>	77-1	12.99	<b>0.94</b>	136-1	7.35
<b>7</b>	<b>blue</b>	<b>2.78</b>	46-1	21.74	<b>1.39</b>	92-1	10.87	<b>0.89</b>	144-1	6.94
<b>8</b>	<b>tan</b>	<b>2.46</b>	52-1	19.23	<b>1.23</b>	104-1	9.62	<b>0.78</b>	165-1	6.06
<b>9</b>	<b>green</b>	<b>1.51</b>	85-1	11.76	<b>1.00</b>	128-1	7.81	<b>0.67</b>	192-1	5.21
<b>10</b>	<b>orange</b>	<b>1.17</b>	109-1	9.17	<b>0.89</b>	144-1	6.94	<b>0.56</b>	230-1	4.35
<b>11</b>	<b>brown</b>	<b>1.03</b>	124-1	8.06	<b>0.78</b>	165-1	6.06	<b>0.50</b>	256-1	3.91
<b>12</b>	<b>yellow</b>	<b>0.8</b>	160-1	6.25	<b>0.56</b>	230-1	4.35	<b>0.40</b>	288-1	3.47
<b>13</b>	<b>aqua</b>	<b>0.61</b>	211-1	4.74	<b>0.41</b>	309-1	3.24	<b>0.30</b>	384-1	2.60
<b>14</b>	<b>purple</b>	<b>0.42</b>	305-1	3.28	<b>0.33</b>	384-1	2.60	<b>0.27</b>	470-1	2.13
<b>15</b>	<b>pink</b>	<b>0.24</b>	542-1	1.85	<b>0.22</b>	576-1	1.74	<b>0.18</b>	714-1	1.40

**Table 2 – The dilution values given in this table are measured at a flow rate of 4.23GPM (16 l/min) supply pressure of 40.61 PSI (2.8 bar), with a suction height of 5 feet (1,5 m).**

The Pro Sink provides the following flow rates (the values shown in table 3 only apply when mixing one product at a time):

<b>1 GPM</b>	<b>Dynamic pressure upstream of the PRO SINK</b>		
	11.6 PSI (0.8 bar)	29 PSI (2 bar)	40.61 PSI (2.8 bar)
<b>Flow Rate in GPM</b>	<b>0,55</b>	<b>1,20</b>	<b>1,50</b>
<b>Flow Rate in l/min</b>	<b>2,10</b>	<b>4,56</b>	<b>5,70</b>

Table 3



**WARNING: OPENING BOTH DOSING TAPS AT THE SAME TIME LEADS TO A SLIGHT REDUCTION IN THE FLOW RATE AND RESULTS IN CHANGES IN DILUTION RATE.**

The degree of dilution required can be obtained by using one of the 15 calibrated metering tips supplied. The nozzles are colors coded as below. Table 4 indicates the degree of dilution for liquids of varying viscosities. A degree of viscosity of **1 cps** (centipoise) is typical for water, engine oil has an average viscosity of **75 cps**, and the approximate viscosity of most manual detergents for pots and pans is **200 cps**.

<b>1 GPM</b>		<b>Dilution ratio for various degrees of viscosity</b>								
<b>Calibration nozzles</b>		<b>1 cps</b>			<b>75 cps</b>			<b>200 cps</b>		
		<b>Oz/Gal</b>	<b>Ratio</b>	<b>Gr/l</b>	<b>Oz/Gal</b>	<b>Ratio</b>	<b>Gr/l</b>	<b>Oz/Gal</b>	<b>Ratio</b>	<b>Gr/l</b>
1	no tips	38,3	3-1	286	18,7	7-1	140	17,5	8-1	131
2	grey	37,3	4-1	279	18,1	7-1	135	17,0	8-1	127
3	black	33,7	4-1	252	17,8	8-1	133	16,6	8-1	124
4	beige	27,8	5-1	208	16,1	8-1	120	14,9	9-1	111
5	red	22,1	6-1	165	13,0	10-1	97	12,6	11-1	94
6	white	17,4	8-1	130	10,3	13-1	77	9,9	14-1	74
7	blue	15,4	9-1	115	9,4	14-1	70	9,1	15-1	68
8	tan	12,6	11-1	94	7,9	17-1	59	7,6	18-1	57
9	green	6,7	20-1	50	4,7	29-1	35	4,4	30-1	33
10	orange	5,2	26-1	39	3,7	36-1	28	3,3	40-1	25
11	brown	4,7	29-1	35	3,3	40-1	25	3,1	43-1	23
12	yellow	3,7	36-1	28	2,4	56-1	18	2,3	59-1	17
13	aqua	3,3	40-1	25	2,1	63-1	16	2,0	67-1	15
14	purple	1,7	77-1	13	1,2	111-1	9	0,9	143-1	7
15	pink	1,1	125-1	8	0,9	143-1	7	0,8	167-1	6

**Table 4 – The dilution values given in this table are measured at a flow rate of 1.057 GPM (4 l/min) supply pressure of 40.61 PSI (2.8 bar), with a suction height of 5 feet (1,5 m).**

The values given in the table should be considered as close approximations, as actual dilution rate 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:

- 1.1 Fill a graduated cylinder with the concentrated product.
- 1.2 Using the above chart, select and insert the tip closest to the desired dilution ratio.
- 1.3 Insert the pick up hose into the graduated cylinder.
- 1.4 Put the outlet tube into a sink and open the tap. Draw up the product until the pick up tube is completely filled.
- 1.5 Mark the level of the product in the graduated container.
- 1.6 Switch the tap off and insert the delivery hose in a 1 gallon (or 1 liter) container.
- 1.7 Switch the tap on again until the 1 gallon (or 1 liter) container is completely full.
- 1.8 Switch the tap off and read the quantity of product in the graduated container.
- 1.9 The difference in the product levels for points 1.5 and 1.8 indicates the amount of product mixed per gallon (or liter).

A nozzle is also provided that has a transparent colored tip without any hole that can be drilled to obtain a customized degree of dilution.

**6.0 MAINTENANCE**

- 1.1 Periodically check for buildup or debris foot filter.
- 1.2 Periodically check and if necessary, clean the washer filter in the GHT ring nut.
- 1.3 Periodically remove any lime build-up. To clean the Venturi properly replace the product to be mixed with a suitably diluted anti lime product and turn the tap to draw the product through the system.

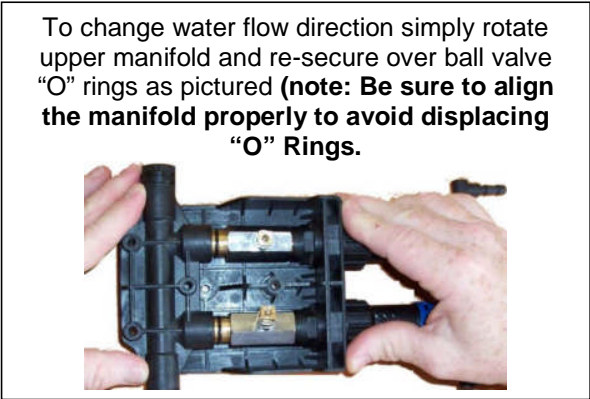
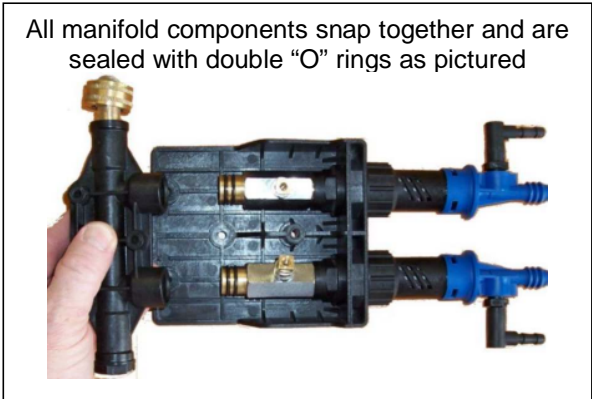
**7.0 TROUBLESHOOTING**

<b>PROBLEM</b>	<b>CAUSE</b>	<b>REMEDY</b>
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 delivery hose flow restrictor ring is in the incorrect position	Insert the delivery hose with the jet breaker at the Venturi end.
	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 holder, as far as the upper stop.
Concentration too high	The metering tip is not fitted or it is fitted badly	Insert the tip in the tip holder properly

8.0 REMOVING THE SS FACING

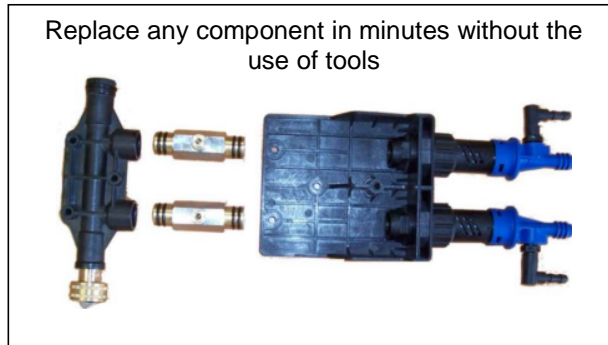


9.0 CHANGING THE WATER INLET DIRECTION

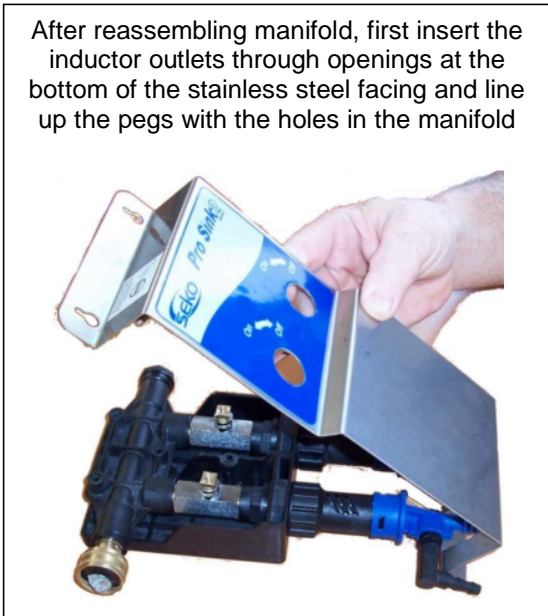




10.0 CHANGING A BALL VALVE



11.0 REASSEMBLING THE PROSINK



## DISCLAIMER: STATE OF MASSACHUSETTS

1. THESE DISPENSERS SHALL BE INSTALLED BY A MASSACHUSETTS LICENSED PLUMBER
2. THE INSTALLATION SHALL BE HARD PIPED USING PRODUCT APPROVED MATERIALS \*(See Below)
3. THE PUBLIC WATER SUPPLIER SHALL BE CONTACTED REGARDING THE PROPER BACKFLOW PREVENTION DEVICE TO BE INSTALLED

**\*Approved Materials:** Attach a brass MALE-GHT x 3/8" Compression fitting to the hose swivel on the dispenser. Using a compression T run 3/8" copper tubing from the water supply to the 3/8" compression fitting at the dispenser.