

# DEMA MODELS P203C, P203CP, P203CT, & P203CTC

## INSTALLATION INSTRUCTIONS

### I. PARTS:

- A. Injector.
- B. 1 pc. Foot Strainer & 1/4" I.D. Tubing.
- C. 1 pc. Ceramic Weight.

### II. INSTALLATION:

#### A. Water Supply.

The water inlet and outlet is 3/8" NPT pipe.

**WARNING: Water supply should not exceed 125 psi and water temperature must not exceed 150°F.**

#### B. Possible Outlet Connections.

The outlet can be pipe or hose. To connect a discharge hose to the outlet a garden hose fitting will be needed. Spray guns, spray nozzles or foaming wands may be used on the hose outlet, note that this Injector is designed to operate with a total spray nozzle flow rating of no less than 4 GPM total at 40 PSI. When a spray gun or nozzle is used, hose lengths must not exceed those shown in Table 1. Hoses, spray guns and foam wands are available through Dema. See the parts list on page 4, under Optional Accessories for various styles.

**TABLE 1**

Hose I.D.	3/8"	1/2"	5/8"
Max. Length	15 ft.	50 ft.	100 ft.

#### C. Placement in the Water Line.

The injector may be placed in a horizontal or vertical line and with the metering knob in any position below, above, or to the side. Water flow must be in the direction of the arrow on the injector body. If the injector pipe size is different from the line size, use pipe bushings or reducers as required. (Injector selection is based on flow not pipe size.)

#### D. Chemical Supply.

**WARNING: USE CARE WHEN HANDLING HAZARDOUS CHEMICALS.**

Place the chemical container in a convenient location not more than six feet below the Injector. (Greater lifts will reduce injection capabilities). The top of the container should not be above the injector. Cut the vinyl tube to any convenient length that will allow the tubing to reach the bottom of the container. Drop the tubing end with the strainer and ceramic weight into the chemical container. Push the other end of the tubing over the chemical inlet barb.

### III. FEED RATE ADJUSTMENT:

#### A. Model P203C and P203CP (with Metering Screw).

See page 4 for the location of the metering screw in the metering knob. The maximum and minimum injection rates are shown in Table 2. Turn the screw all of the way in for the minimum injection rate and five turns counterclockwise for maximum rates.

**TABLE 2**

Viscosity, (cps)	1	75	200
oz/gallon (minimum)	0.33	-----	-----
oz/gallon (maximum)	12.80	3.50	1.55

**All injection rates are based on 40 PSI inlet water pressure and a water flow rate of 2.5 GPM.**

#### B. Model P203CT & P203CTC (with Metering Tips).

The chemical feed rate is controlled by a metering tip screwed into the metering barb on the side of the unit. The feed rates can be changed by using a different size metering tip which is available through Dema (See parts list on page 4). To select a proper size metering tip for the desired dilution ratio refer to Table 3.

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**TABLE 3**  
DEMA MODEL P203CT & P203CTC  
METERING TIP SELECTION CHART  
INJECTION RATES USING METERING TIPS (100-15)

Metering Tip Color	Injection Rate for Viscosities Shown					
	1 cps		75 cps		200 cps	
	Oz/Gal	Ratio	Oz/Gal	Ratio	Oz/Gal	Ratio
Tan	0.40	320-1	0.25	512-1	0.20	640-1
Orange	0.50	256-1	0.35	366-1	0.25	512-1
Turquoise	0.75	171-1	0.45	284-1	0.35	366-1
Pink	0.95	135-1	0.65	197-1	0.45	284-1
Clear	1.30	98-1	0.80	160-1	0.55	233-1
Brown	1.50	85-1	0.90	142-1	0.60	213-1
Red	1.90	67-1	1.00	128-1	0.70	183-1
White	2.25	57-1	1.30	98-1	0.80	160-1
Green	2.64	49-1	1.50	85-1	0.90	142-1
Blue	3.20	40-1	1.75	73-1	1.00	128-1
Yellow	4.85	26-1	2.25	57-1	1.10	116-1
Black	6.50	20-1	2.40	53-1	1.15	111-1
Purple	9.20	14-1	2.70	47-1	1.20	107-1
Gray	10.40	12-1	2.85	45-1	1.25	102-1
No Tip	12.80	10-1	3.50	37-1	1.55	83-1

**All injection rates are based on 40 PSI inlet water pressure and a water flow rate of 2.5 GPM.**

#### IV. SERVICING:

**CAUTION: TURN OFF WATER SUPPLY BEFORE SERVICING.**

##### A. If unit fails to draw chemical.

1. Is the hose too long? (See Table 1)
2. Is the gun or nozzle(s) sized properly? (Refer to Section II B). Remove gun and/or nozzle(s) and turn on water. If the injector inducts chemical, the gun and nozzle(s) are improperly sized.
3. Is the metering tip blocked? Remove tip and clear blockage. (P203CT & P203CTC Only)
4. Is the metering screw backed off? (Refer to Section III A). (P203C & P203CP Only)
5. Is the hose kinked or otherwise obstructed?
6. Is the spray gun or foam wand fully open?

##### B. If unit stops drawing chemical.

1. Is the foot strainer clogged? Lift from drum and clean.
2. Are the spray nozzle(s) partially clogged? Remove and clean.
3. Is the metering tip blocked? Remove and clean. (P203CT & P03CTC Only)
4. Is the metering screw clogged? (P203C & P203CP Only)
5. Is the injector check valve clogged? Remove square, plastic metering knobs to inspect check valve ball, spring and O-ring.

**CAUTION: WHEN SERVICING UNIT BE SURE THAT REPLACEMENT PARTS HAVE BEEN INSTALLED ACCORDING TO DRAWING. BE CERTAIN CHECK VALVE PARTS ARE IN PLACE.**

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**RETURNS:**

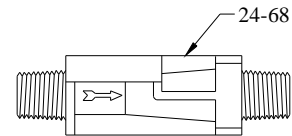
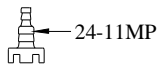
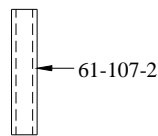
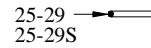
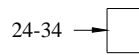
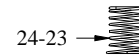
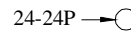
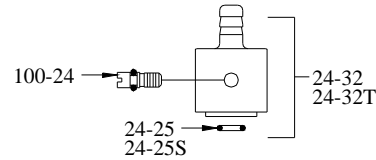
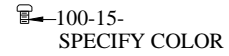
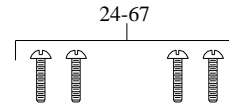
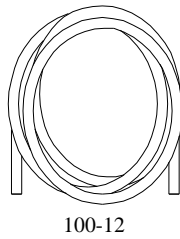
*NO MERCHANDISE MAY BE RETURNED FOR CREDIT WITHOUT DEMA'S WRITTEN PERMISSION. RETURN MERCHANDISE AUTHORIZATION NUMBER REQUIRED IN ADVANCE OF RETURN.*

**WARRANTY:**

DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, improper voltage supply, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "o"-rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. This warranty is extended only to the original buyer of DEMA products. If products are altered or repaired without prior approval of DEMA, this warranty will be void.

Defective units or parts should be returned to the factory with transportation prepaid. If inspection shows them to be defective, they will be repaired or replaced without charge, F.O.B. factory. DEMA assumes no liability for damages. Return merchandise authorization number, to return units for repair or replacement, must be granted in advance of return.

# DEMA MODELS P203C, P203CP, P203CT, & P203CTC INSTALLATION INSTRUCTIONS



PART NO.	DESCRIPTION
24-11MP	FOOT STRAINER
24-23	CHECK VALVE SPRING
24-24P	CHECK VALVE BALL
24-25	CHECK VALVE O-RING
24-25S	CHECK VALVE O-RING (P203CTC)
25-29	O-RING
25-29S	O-RING (P203CTC)
24-32	METERING KNOB (P203C & P203CP)

PART NO.	DESCRIPTION
24-32T	METERING KNOB (P203CT & P203CTC)
24-34	CHECK VALVE CORE
24-67	SCREW (1" LG 4-REQD.)
24-68	VALVE BODY
61-107-2	CERAMIC WEIGHT
100-12	VINYL TUBING (1/4" ID X 8' LG)
100-15-	METERING TIP (SPECIFY COLOR)
100-24	METERING SCREW