

DEMA ADJUSTABLE SINGLE STAGE INJECTORS E VERSIONS

MODELS 202B, 202BP, 202 BT, 203B, 203BP, 203 BT, 204B, 204BP, 204 BT, 206B, 206BP, 206BT

INSTALLATION INSTRUCTIONS

1. PARTS

- A. Injector
- B. Ceramic Weight.
- C. Plastic tubing 2,6m long with foot strainer.

2. INSTALLATION

The injector may be installed in any position in the water line with the arrow in the direction of flow. Drop end of plastic tubing with strainer into fluid product container. Cut tubing to convenient length, and slip open end over injector fitting.

3. OPERATION

Warning: Use care when handling hazardous chemicals.

See Fig. 1 for location of water bypass screw and fine metering adjustment screw. Turn on water supply valve. The injector may draw momentarily as the system is filling but normally will stop as the system builds up to full pressure. To actuate injector, turn the bypass screw clockwise until product begins to be drawn from the container. After the fluid reaches the injector, the feed rate may be adjusted to the desired rate by turning the bypass screw. The maximum injection rates are shown in Table 2. For low injection rates, it is advisable to set the bypass screw for more injection than required; then turn the fine metering screw clockwise to reduce injection to the desired rate. Table 1 shows the operation range of the injector. If the injector will not draw with the bypass screw full in, then the water flow is below the range of the injector. If the injector draws with the screw full out but pressure loss is excessive, then flow is above the range of the injector. Table 3 shows the injection rates for models 202 BT, 203 BT, 204 BT, and 206 BT using metering tips at various viscosities. Table 4 shows the appropriate pipe size used for each injector.

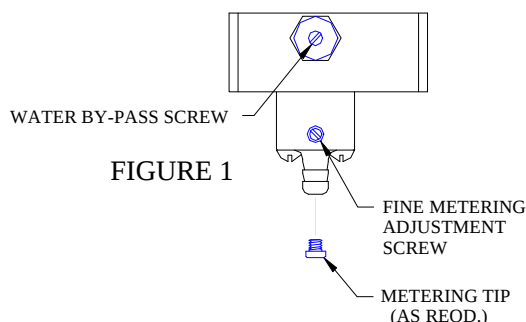


TABLE 1

Water Pressure bar	Operating Range - Liters Per Minute			
	Model 202 BE	Model 203 BE	Model 204 BE	Model 206 BE
0,7	0,95 – 7,6	1,9 – 13,2	7,6 – 24,2	13,6 – 41,6
1,4	1,1 – 8,7	2,1 – 16,6	8,7 – 16,6	15,9 - 49
2,8	1,4 - 11	2,6 - 11	11 – 34,1	20 – 64,3
4,2	1,6 – 12,9	3,0 – 24,2	12,9 – 41,6	23,4 – 71,9
7	2,04 – 15,9	3,8 – 30,3	15,9 - 53	29,1 – 90,8
14	2,8 – 21,6	5,3 – 41,6	21,6 – 71,9	41,6 - 125
28	3,8 - 30	7,2 – 56,8	29,9 – 98,4	56,8 - 174
35	4,5 – 33,7	7,9 – 64,3	33,7 - 109	64,3 - 193
* 49	5,3 – 41,6	9,5 - 76	41,6 - 132	76 - 227
* 70	6,1 – 49,2	11,3 - 87	49,2 - 155	87 - 265
*105	7,6 – 60,6	13,2 - 106	60,6 - 189	106 - 329
* 140	8,3 – 68,1	17,8 - 140	68 - 219	125 - 378
* 210	10,2 - 76	18,9 - 170	76 - 265	151 - 378

* SPECIFY – S Stainless Steel Knob – Part No. 24-32S or Part No. 24-32ST (for tips) for pressure exceeding 49 bar.

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TABLE 2

Fluid Viscosity (cps)	Maximum Injection (Mls/Min)			
	Model 202 BE	Model 203 BE	Model 204 BE	Model 206 BE
1	236	472	1062	1239
75	118	236	383	531
220	59	118	147	236

TABLE 3

Metering Tip Color	202BTE			203BTE			204BTE			206BTE		
	Injection Rates (Mls/Min)											
	Viscosity (cps)			Viscosity (cps)			Viscosity (cps)			Viscosity (cps)		
	1	75	200	1	75	200	1	75	200	1	75	200
Tan	30	30	18	32	24	15	32	24	15	30	21	18
Orange	44	35	21	41	30	21	41	27	18	41	30	24
Turquoise	53	41	35	59	41	30	56	35	27	56	38	30
Pink	74	59	41	80	53	38	77	50	38	77	53	38
Clear	97	80	50	103	71	47	100	71	47	103	68	50
Brown	94	86	56	118	80	50	118	71	56	118	77	53
Red	124	89	62	145	97	59	145	86	65	148	91	59
White	142	103	62	177	115	68	177	100	71	183	109	71
Green	153	109	68	201	130	74	201	112	74	209	121	77
Blue	183	118	71	230	145	80	248	127	91	263	142	86
Yellow	209	127	80	304	174	86	386	153	100	398	174	94
Black	207	130	83	389	198	89	537	180	103	593	198	103
Purple	218	136	86	504	198	91	811	201	103	923	221	106
Gray	230	139	91	561	209	97	971	207	103	1130	236	112
No Tip	233	139	97	590	236	109	1174	233	109	1419	271	130

All induction rates are based on a water inlet pressure of 2,8 bar and operating at a full vacuum.

TABLE 4

Model	Pipe Size
202 B	3/8 BSPP
203 B	3/8 BSPP
204 B	1/2 BSPP
206 B	3/4 BSPP

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4. SERVICING

CAUTION: Turn off water supply before servicing.

The check valve parts are in the metering knob and can be cleaned by removing the four screws. The knob may be rotated if it is more convenient to have the adjusting screw on another side of the injector. As with any injector, if spray jets become clogged or downstream restriction increases in any manner, the injector will stop drawing fluid. If it is inconvenient to remove the restriction immediately, the injector may be put back into operation by turning the water bypass screw further clockwise; this adjusts the injector to the lower flow rate. The bypass screw should be reset once the restriction is removed.

CAUTION: When servicing, make sure that replacement parts have been installed according to drawing. Be certain to check valve parts are in place.

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

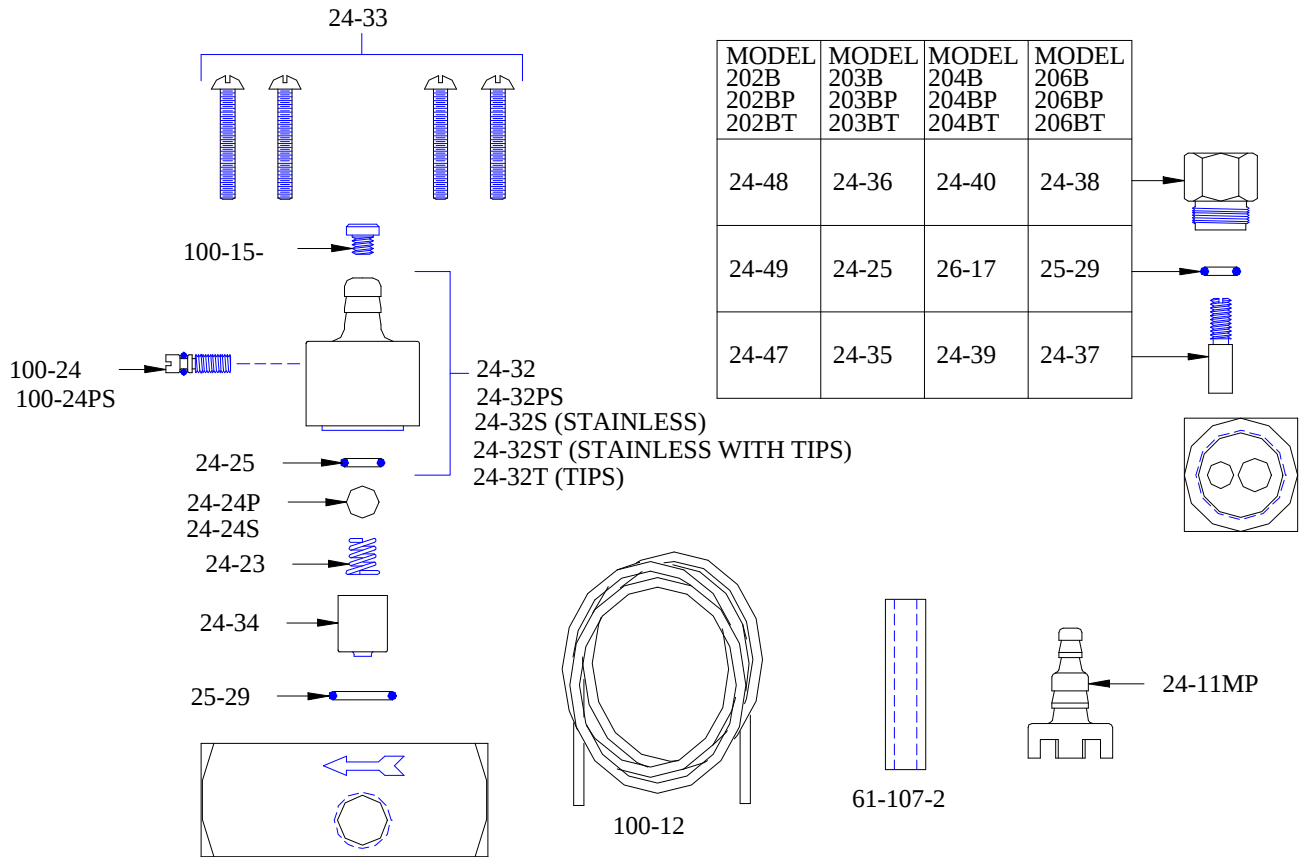
WARRANTY: DEMA products are warranted against defective material and workmanship under normal use and service for one year from the date of manufacture. This limited warranty does not apply to any products which have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, 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.

ADJUSTABLE SINGLE-STAGE INJECTORS

MODELS: 202B, 202BP, 202BT, 203B, 203BP, 203BT, 204B,
204BP, 204BT, 206B, 206BP, 206BT

MODEL #'S MAY ALSO INCLUDE S, E, C AND/OR -2.



PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
24-11MP	FOOT STRAINER	24-39	BY-PASS SCREW
24-23	CHECK VALVE SPRING	24-40	BY-PASS SCREW RETAINER
24-24P	CHECK VALVE BALL (TEFLON)	24-47	BY-PASS SCREW
24-24S	CHECK VALVE BALL (STAINLESS)	24-48	BY-PASS SCREW RETAINER
24-25	CHECK VALVE O-RING	24-49	O-RING
24-32	METERING KNOB ASSY.	25-29	O-RING
24-32PS	METERING KNOB ASSY. (BP INJECTORS)	26-17	O-RING
24-32S	METERING KNOB ASSY.	61-107-2	CERAMIC WEIGHT
24-32ST	METERING KNOB ASSY.	100-12	VINYL TUBING (3/8" O.D. X 8' LG)
24-32T	METERING KNOB ASSY.	100-15-	METERING TIP (SPECIFY COLOR)
24-33	SCREW #8-32 X 7/8 LG. (4-REQD.)	100-15K	METERING TIP KIT (14 PCS.)
24-34-	CHECK VALVE CORE (SPECIFY MODEL NO.)	100-24	METERING SCREW
24-35	BY-PASS SCREW	100-24PS	METERING SCREW (-BP INJECTORS)
24-36	BY-PASS SCREW RETAINER		
24-37	BY-PASS SCREW		
24-38	BY-PASS SCREW RETAINER		