

ROCKET XL

High Performance Injectors Technology by DEMA

211 thru 223 Series 1/2" Injectors



Overview

The DEMA Rocket injector is designed as a fully customizable, easy to service injector for all your in-line cleaning needs. It is capable of operating under a range of pressures and provides an extreme variety of dilution ratios from 1:9 to 1:2500 depending on the flow rate and nozzle size. The removable metering barb, nozzle and other internal components allow for easy serviceability. The injector is produced using chemically resistant materials including Aflas, Hastelloy, 316 grade Stainless Steel, PTFE and polypropylene.

Warnings

This product is designed only to be used as described in this instruction sheet. Adhere to all warnings and cautions identified in this document.



WARNING: Installations must conform to all local and national plumbing codes and use approved backflow prevention and pressure relief devices where required.



Always read MSDS for all chemicals used and follow personal protective guidelines.

Packaging, Operating Requirements

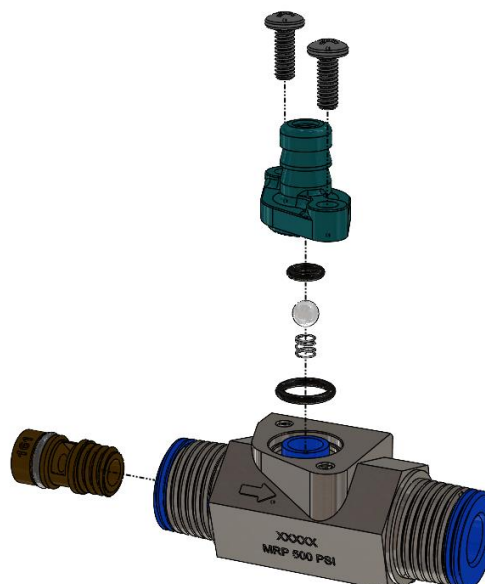
In this package*
1 – Rocket Injector
1 – Instruction Sheet

**Each unit is packaged individually.
Metering tips and tubing are not included.*

	Minimum	Maximum
Operating Temperature	-	150 F
Operating Pressure ^(1,2)	30 psi	500 psi ¹
Installation Torque		25 ft-lbs.

Parts List

Nozzle and Barb Repair Kits Part No.		
Single Barb	Dual Barb	
21.161	22.161	
21.177	22.177	
21.185	22.185	
21.206	22.206	
Three digits identify nozzle size		
Check Valve Kits Part No.		
Single Barb	Dual Barb	
21.001	22.001	
21.003	22.003	
Metering Barbs		
Part Number	Color	
41413.1.1	Dark Gray 1/4"	
41413.1.2	Teal 1/4"	
41413.1.3	Light Orange 1/4"	
41413.1.4	Black 1/4"	
41413.2.1	Dark Gray 3/8"	
41413.2.2	Teal 3/8"	
41413.2.3	Light Orange 3/8"	
41413.2.4	Black 3/8"	



Installation

Placement in the water line:

1. The injector may be installed in a horizontal or vertical line and with the metering barb 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 thread size is different from the line size, use pipe bushings or reducers as required. Injector selection is based on flow, not line size. Flow requirements are listed in the table below.

Connection to chemical supply:

2. Install a ceramic weight by sliding the plastic tubing through the ceramic weight. Drop the end of the tubing with the strainer and ceramic weight into the fluid product container. Cut the tubing to any convenient length and slip the open end over the metering barb. The container may be more than 8 feet below the injector (extra tubing required) but injection capacity will be less. Do not place the container above the injector unless the injector is under pressure when not in use.



This will prevent free siphoning.

Do not use chemical pipe sealant for threads or damage to the plastic threads could occur. Use a PTFE thread sealant tape or non-drying pipe sealant.

Troubleshooting

Unit fails to draw or draws incorrect induction of chemical after initial installation:

1. Is the injector sized correctly to the equipment? Review application and installation requirements against nozzle specifications for correct installation.
2. Is the injector body installed with the arrow on the side in the direction of the water flow? If not, remove and reverse direction to have arrow pointing same as flow of water.
3. Is the metering tip seated firmly against metering barb? Check by turning metering tip clockwise until it won't turn any further. No threads of the metering tip should be visible when installed correctly.
4. Is the water supply and pipe sized correctly for the current flow rate?

Unit stops drawing chemical:

1. Is the chemical pickup tube clogged? Check installed components such as a foot valve and any inline check valves installed to make sure they're free of obstructions.
2. Is the metering tip clogged? Remove and clean. Average life of a metering tip is between 6-12 months depending on chemicals used.
3. Is the injector check valve clogged? Remove metering barb to inspect check valve ball, spring and O-rings.

Warranty

Merchandise Returns

No Merchandise will be returned for credit without DEMA'S written permission. Returned merchandise authorization number is required in advance of return.

Product 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 that have a normal life shorter than one year or failure and damage caused by chemicals, corrosion, physical abuse, or misapplication. Rubber and synthetic rubber parts such as "o"-rings, diaphragms, PVC 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 is 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 must be granted in advance of returned units for repair or replacement (See "Merchandise Returns" above).

Metering Tip Chart

NOTE: Dilution Ratios are based on 100 or 200 PSI inlet pressure and 45 or 90 PSI outlet pressure respectively. Dilution Ratios are based on drawing water or water-thin chemical through the metering tip. Different viscosities and temperatures will affect the draw rates and lower the amount of fluid inducted increasing the overall dilution ratio making the injectors (and ratio) leaner.

Rocket 2.0 Dilution Chart (100 PSI) 3/8 Barb				
Metering Tip Color	Nozzle Size			
	.161 (6 GPM)	.177 (8 GPM)	.185 (9 GPM)	.206 (11 GPM)
No Tip	6	8	8	9
Tan	7	9	9	10
Lt. Blue	8	11	11	14
Orange	10	13	14	18
White	14	17	17	23
Brown	16	20	21	28
Blue	22	27	29	38
Red	28	34	35	45
Gray	33	42	44	55
Black	43	53	56	73
Turquoise	53	68	70	88
Pink	100	120	110	141
Green	120	148	154	196
Yellow	183	230	234	301
Purple	259	323	380	477
Clear	425	504	549	690

Rocket 2.0 Dilution Chart (200 PSI) 3/8 Barb				
Metering Tip Color	Nozzle Size			
	.161 (8 GPM)	.177 (10 GPM)	.185 (12 GPM)	.206 (15 GPM)
No Tip	8	10	10	13
Tan	9	11	11	14
Lt. Blue	11	14	14	18
Orange	15	18	19	24
White	19	23	24	30
Brown	23	28	29	37
Blue	32	39	41	51
Red	38	45	49	61
Gray	47	57	61	74
Black	58	72	75	94
Turquoise	74	90	96	120
Pink	118	144	154	188
Green	163	197	213	258
Yellow	246	305	325	404
Purple	365	458	523	628
Clear	579	707	760	925

Rocket 2.0 Dilution Chart (100 PSI) 1/4 Barb				
Metering Tip Color	Nozzle Size			
	.161 (6 GPM)	.177 (8 GPM)	.185 (9 GPM)	.206 (11 GPM)
No Tip	9	11	11	13
Gray	17	21	22	27
Purple	23	28	29	37
Black	45	56	59	76
Yellow	54	70	72	97
Blue	81	105	107	149
Green	123	151	153	201
White	144	177	189	217
Red	152	188	200	231
Brown	183	222	241	301
Lt. Blue	199	247	262	341
Pink	275	345	362	490
Turquoise	432	522	570	653
Orange	536	667	707	913
Tan	588	697	795	983
Lime	669	835	884	1309
Burgundy	859	1009	1144	1633
Pumpkin	1001	1215	1327	1780
Copper	1502	1818	1994	2204

Rocket 2.0 Dilution Chart (200 PSI) 1/4 Barb				
Metering Tip Color	Nozzle Size			
	.161 (8 GPM)	.177 (10 GPM)	.185 (12 GPM)	.206 (15 GPM)
No Tip	11	13	15	17
Gray	23	28	30	36
Purple	31	38	39	49
Black	63	73.5	80	103
Yellow	74	94	96	127
Blue	112	132	143	202
Green	169	202	220	272
White	202	238	262	296
Red	215	253	275	314
Brown	254	296	327	406
Lt. Blue	282	329	357	458
Pink	396	459	499	673
Turquoise	599	706	779	739
Orange	762	900	997	1207
Tan	797	965	1072	1325
Lime	958	1098	1225	1832
Burgundy	1151	1318	1483	2308
Pumpkin	1395	1649	1865	2407
Copper	2082	2470	2867	2977