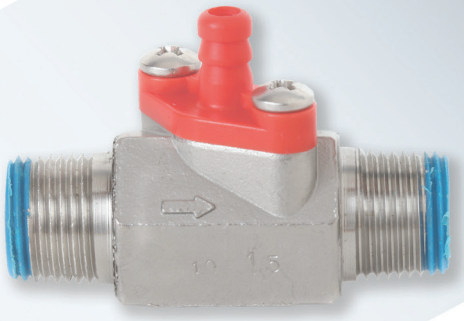
DEMA®



INDUSTRIAL

PRODUCTS CATALOG

demaeng.com

OUR STRATEGY

*To sustainably grow by offering the best **customized chemical dispensing and fluid control solutions** based on our deep **industry experience, flexible and responsive operations,** and cultural commitment to our **customers' success** and **supporting our communities.***

PILLARS OF SUCCESS

CUSTOMIZED SOLUTIONS

We work hand in hand with our customers to provide unique customized solutions to drive value, enhance image, and build strong brands within their industry. We are able to do complete customized designs to meet our customer's applications or small changes to existing products.

INDUSTRY EXPERTISE

As a global leader in our industry, we have regional support dedicated to all areas of the world. At our corporate headquarters we have comprehensive technical support, complete design and prototyping capabilities, as well as a state-of-the-art laboratory.

FLEXIBLE & RESPONSIVE OPERATIONS

With five manufacturing facilities in the United States, light manufacturing in Europe and Australia, and global contract manufacturing, we're able to streamline product delivery to critical markets. We follow ISO9001: QMS which drives our continuous improvement.

CUSTOMER SUCCESS & COMMUNITY SUPPORT

We view our customer's success as our own. Our dedication to an excellent customer experience parallels the effort that goes into the design and manufacturing of every product we make. We are committed to being a responsible partner to the communities where we do business. We do this through promoting environmental stewardship, implementing sustainable business practices, and giving back with charitable endeavors.

Solenoid Valves

There are two basic types of solenoid valves. The most common is the normally closed type in which the valve opens when the coil is energized (when electrical power is applied to the coil). The other type is the normally open valve which closes when the coil is energized.

Our valves are suitable for most industrial applications. They are ideal for water, air, light oil, noncorrosive and nonexplosive liquids. Valves are rated for 200ºF/93ºC fluid temperature and 120ºF/49ºC ambient temperature except for the Mini Diaphragm Valves which are rated for 180ºF/82ºC fluid and 120ºF/49ºC ambient. The molded waterproof coils have wiring options that include a junction box, spade, conduit, and din style connection. They have voltage options of 12VDC, 24VDC, 24, 120, 208, and 240VAC 50/60 Hz on most models. Component materials are available in Buna N, EPDM, Viton, Teflon, and Silicone on most models. DEMA offers valves made from brass, stainless steel, Celcon, PVC, polypropylene and nylon. Stainless steel seats are standard on all pilot piston, diaphragm (except mini series), and high pressure valves. Valves may be mounted in any position except with the coil under the valve. Most valves are listed by Underwriter's Laboratories, Inc. (reference number available upon request).

Construction

DEMA solenoid valves are constructed to ensure long, trouble free life.They employ proven design features for reliable performance on all applications. Quality is maintained by strict control methods in all phases of production. Detailed testing of every valve produced during all stages of manufacturing is followed by 100% testing for body and seat tightness, electrical characteristics, and valve operation. All DEMA valves are manufactured in our Missouri plants.

Electrical

DEMA solenoid valves are available in many AC and DC voltage ratings. For ease of identification, coils are manufactured with the following lead wire, or printed label color.

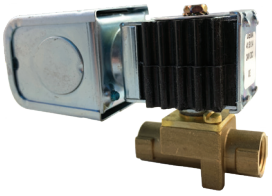
	LEADS		**MOLDED SPADE**
12 VDC/24 VDC	Black	12 VDC/24 VDC	White
24/50-60 AC	Orange	24/60 VAC	Blue
120/50-60 AC	Blue	120/60 VAC	Green
208-240/50-60 AC	Red	240/60 VAC	Red

Coil leads on valves with a conduit boss and flying lead coils are 18" long. Coil leads on valves with a junction box are 6" in length.

Direct Acting Valves

NORMALLY CLOSED
APPLICATION: Water, air, light oil, noncorrosive and non explosive liquids.
OPERATION: The stem and plunger assembly opens the port of the valve directly. Limited to the smaller valves with port sizes of less than 1/4 inch. Requires no minimum pressure to operate.
PIPE SIZE: 1/4" NPT
MOPD: Max 150 PSI Min 0 PSI
BENEFITS: Requires 0 PSI to open/close the valve because of operation

Valves rated 200F/93C fluid, 120F/49C ambient



401P

492S

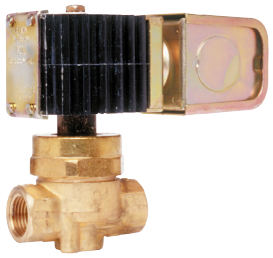
MODEL #	BODY	SEAL	ORIFICE	CV
401P	Brass	Buna N	7/64"	0.27
401PT	Brass	Teflon	7/64"	0.27
401PV	Brass	Viton	7/64"	0.27
492S.8	303 SS	Buna N	1/8"	0.27
492S.8E	303 SS	EPDM	1/8"	0.27
492S.8V	303 SS	Viton	1/8"	0.27

Pilot-Piston Valves

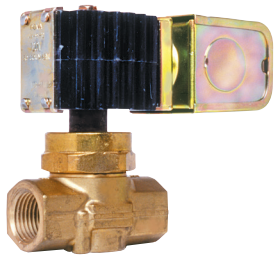
NORMALLY CLOSED
APPLICATION: Water, air, light oil, noncorrosive and nonexplosive liquids.
OPERATION: The stem and plunger assembly opens the port. This releases the pressure on top of the piston, which moves upward and opens the main valve port.

BODY: Brass
SEAL: Teflon
BENEFITS: High durability, Industrial construction

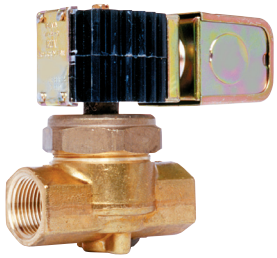
Valves rated 200F/93C fluid, 120F/49C ambient
All pilot piston valves have stainless steel seats



412/A413P



A414P



A416P

A418P

MODEL #	PIPE SIZE	ORIFICE	MOPD	CV
412P	3/8" NPT	9/32"	150 PSI	1.2
412P.HP	3/8" NPT	9/32"	450 PSI	1.2
A413P	3/8" NPT	5/16"	150 PSI	2.0
A414P	1/2" NPT	7/16"	150 PSI	3.1
A414P.HP	1/2" NPT	7/16"	450 PSI	3.1
A416P	3/4" NPT	19/32"	150 PSI	5.0
A416P.HP	3/4" NPT	19/32"	450 PSI	5.0
A418P	1" NPT	3/4"	150 PSI	8.0
A418P.HP	1" NPT	3/4"	450 PSI	8.0

For valve reference and repair kits, see page 25

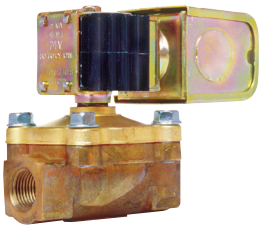
Diaphragm Valves

NORMALLY CLOSED
APPLICATION: Water, air, light oil, noncorrosive and nonexplosive liquids. Recommended for applications that have unfiltered fluid.
OPERATION: When energized, the plunger is pulled to the top plug, thus opening the small “pilot port” in the center of the diaphragm plate. This releases the pressure on top of the diaphragm allowing incoming pressure to lift it off the large center port. When de-energized, the solenoid plunger is pushed from the top plug by the kick-off spring and closes the pilot port. Fluid passes through the diaphragm bleed hole until pressure is equalized on both sides of the diaphragm to shut off the large port.
All diaphragm valves have stainless steel seats

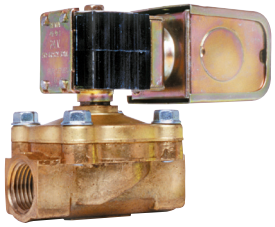
MOPD: Max 150 PSI Min 1 PSI
BENEFITS: Forgiving with contaminants in water
SEAL: BUNA Standard, Teflon available on most models

Suitable for up to 10 psi steam, 240F/115C with Teflon Diaphragm, add suffix (T) for Teflon Diaphragm

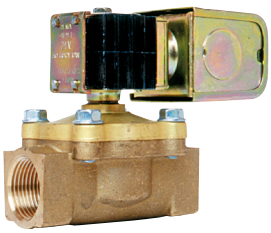
Valves rated 200F/93C fluid, 120F/49C ambient



473P



474P



476P

476PS

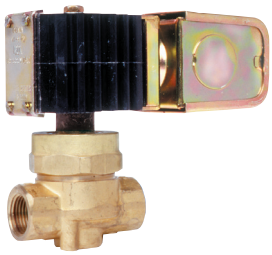
MODEL #	PIPE SIZE	ORIFICE	CV
473P	3/8″ NPT	9/16″	3.5
474P	1/2″ NPT	9/16″	4.0
476P	3/4″ NPT	3/4″	5.0
476PS	3/4″ NPT	3/4″	5.0
478PS	1″ NPT	1″	13.0

High Pressure Valves Up to 1200 psi

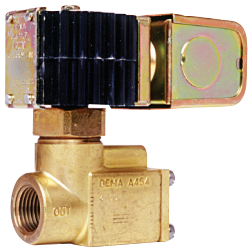
NORMALLY CLOSED
APPLICATION: Water
All valves have stainless steel pistons and seats.
(S) designates stainless steel sleeve
OPERATION: Same as a pilot operated valve except the pilot port is in a separate chamber from the piston. This allows the plunger to operate closer to the top plug with more force and consequently higher opening pressure.

BODY: Brass
SEAL: Teflon
MOPD: Max 1200 PSI Min 10 PSI
BENEFITS: Industrial design and stainless steel pistons make for a workhorse valve.

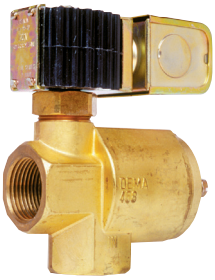
Valves rated 200F/93C fluid, 120F/49C ambient



453P



454P



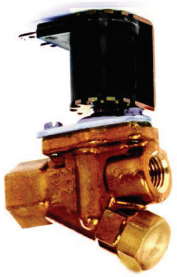
458P

MODEL #	PIPE SIZE	ORIFICE	CV
453P	3/8″ NPT	7/20″	1.8
453S	3/8″ NPT	7/20″	1.8
454P	1/2″ NPT	1/2″	3.7
458P	1″ NPT	15/16″	11.1
458PS	1″ NPT	15/16″	11.1

For valve reference and repair kits see page 25

Mini Diaphragm Valves

NORMALLY CLOSED
APPLICATION: Water, air, light oil, noncorrosive & nonexplosive liquids. 60 mesh stainless steel filter on series 442 and 443, rated for 180˚F/82˚C fluid and 120˚F/49˚C ambient.
SEAL: Available with EPDM (Std), Viton
MOPD: Max 125 PSI Min 3 PSI
BENEFITS: Mini diaphragm valve is cost competitive and not sensitive to contaminants in water.



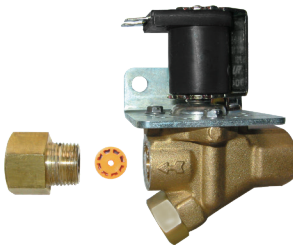
442P, 443P

P442, P443
NSF Std. 61, C-2 Approved

463PSJ, 464PSJ
NSF Std. 61, C-2 Approved

P462, P463
NSF Std. 61, C.2 Approved

463PS, 464PS 303 SS
NSF Std. 61, C.2 Approved



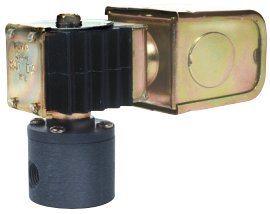
443PFB Flow Disc,
Optional disc available

MODEL #	BODY	PIPE SIZE	ORIFICE
442/443P	Brass	1/4″ & 3/8″ NPT	1/4″
P442/P443	Celcon	1/4″ & 3/8″ NPT	1/4″
PP442/3	Polypropylene	1/4″ & 3/8″ NPT	1/4″
P462/3	Celcon	1/4″ & 3/8″ NPT	1/4″
463PS/464PS	303 SS	3/8″ & 1/2″ NPT	3/8″
463PSJ/464PSJ	303 SS	3/8″ & 1/2″ NPT	3/8″

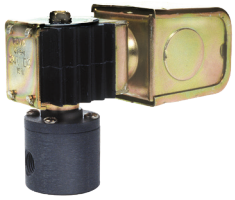
Special Purpose Valves

NORMALLY CLOSED
APPLICATION: Water, air, light oil, noncorrosive and nonexplosive liquids.
BODY: PVC, Nylon
SEAL: EPDM (Std), (Viton Standard 466P)

466P
Glass Filled Nylon



481P*
Direct acting diaphragm used on vacuum lines with corrosive liquids.



482.2
Direct acting diaphragm used on vacuum lines with corrosive liquids, adjustable.

MODEL #	MOPD	ORIFICE	CV
481P	vacuum	5/32″	0.27
482.2	vacuum	5/32″	0.2
466P	150 psi / 3 psi	3/4″	10.0

For valve reference and repair kits see page 25

Direct Acting Single Station and Manifold Valves

NORMALLY CLOSED
APPLICATION: Water, air, light oil, noncorrosive and nonexplosive liquids.
PIPE SIZE: 1/4" NPT
SEAL: Buna standard, EPDM & Viton available
MOPD: Max 150 PSI Min 0 PSI

492M1M One Station

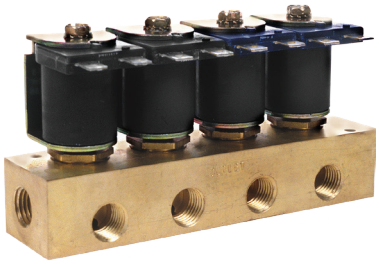
Brass

Common inlet port for fluid supply to all valves on both ends. Metering screw available.

MODEL #	# STA.	SEAL	ORIFICE	CV
492M1.8	1	Buna N	1/8"	0.27
492M2.8	2	Buna N	1/8"	0.27
492M3.8	3	Buna N	1/8"	0.27
492M4.8	4	Buna N	1/8"	0.27
492M5.8	5	Buna N	1/8"	0.27
492M1.8V	1	Viton	1/8"	0.27
492M2.8V	2	Viton	1/8"	0.27
492M3.8V	3	Viton	1/8"	0.27
492M4.8V	4	Viton	1/8"	0.27
492M5.8V	5	Viton	1/8"	0.27

All styles available with metering

492MSS3 Three Station



492M4M Four Station

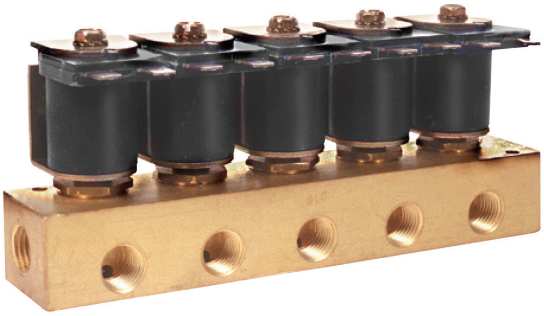
Stainless Steel

Common inlet port for fluid supply to all valves on both ends. Metering screw available.

MODEL #	# STA.	SEAL	ORIFICE	CV
492MSS2.8	2	Buna N	1/8"	0.27
492MSS3.8	3	Buna N	1/8"	0.27
492MSS4.8	4	Buna N	1/8"	0.27
492MSS5.8	5	Buna N	1/8"	0.27
492MSS2.8V	2	Viton	1/8"	0.27
492MSS3.8V	3	Viton	1/8"	0.27
492MSS4.8V	4	Viton	1/8"	0.27
492MSS5.8V	5	Viton	1/8"	0.27

All styles available with metering

492MSS4M Four Station



492M5M Five Station

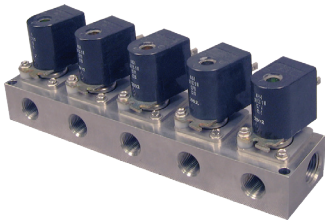
For valve reference and repair kits see page 25

Diaphragm Manifold Valves

NORMALLY CLOSED
APPLICATION: Water, air, light oil, noncorrosive and nonexplosive liquids.
PIPE SIZE: 1/2” NPT inlets (2 per valve), 3/8” NPT Outlet
SEAL: Viton standard, EPDM available
COIL: DIN coil standard, Spade, Lead wire coil available
MOPD: Max 150 PSI Min 3 PSI

464M3

464M4



464M5

MODEL #	# STA.	SEAL	ORIFICE	CV
464M3.16	3	Viton	3/8″	2.0
464M4.16	4	Viton	3/8″	2.0
464M5.16	5	Viton	3/8″	2.0

Other versions can be customized upon request.
DIN Coil shown, spade coil available.

High Pressure Manifold Valves

NORMALLY CLOSED / NORMALLY OPEN
APPLICATION: Water
PIPE SIZE: 2 inlets per valve, Pipe size varies
SEAL: Viton standard
COIL: DIN coil standard
MOPD: Max 1200 PSI Min 10 PSI

454M2

456M3

MODEL #	INLET	# STA	OUTLET
454M2.4.CC	1/2″	2	1/2″
454M2.4.OC	1/2″	2	1/2″
456M3.4.OOO	3/4″	3	1/2″
456M3.4.CCC	3/4″	3	1/2″
456M2.6.CC	3/4″	2	3/4″
456M2.6.OC	3/4″	2	3/4″
456M3.6.CCC	3/4″	3	3/4″
458M2.8.CC	1″	2	1″
458M2.8.OC	1″	2	1″

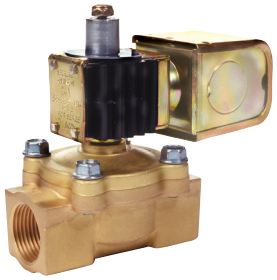
O - Normally Open, C - Normally Closed

For valve reference and repair kits see page 25

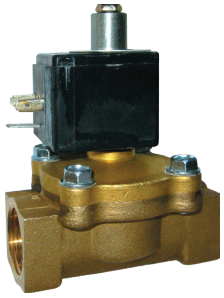
Diaphragm Valves

NORMALLY OPEN
APPLICATION: Water, air, light oil, noncorrosive & nonexplosive liquids.
BODY: Brass
SEAL: Buna
MOPD: Max 150 PSI Min 1 PSI

Valves rated 200F/93C fluid, 120F/49C ambient



O474P



O474P Shown with DIN

MODEL #	PIPE SIZE	ORIFICE	CV
0473P	3/8" NPT	9/16"	3.5
0474P	1/2" NPT	9/16"	4.0
0476P	3/4" NPT	3/4"	5.0

Mini Diaphragm Valves

NORMALLY OPEN
APPLICATION: Water, air, light oil, noncorrosive & nonexplosive liquids.
SEAL: EPDM, Viton available
PIPE SIZE: 1/4" NPT, 3/8" NPT, 1/2" NPT
MOPD: Max 125 PSI Min 3 PSI
Ideal for weep systems
Valves rated for 180˚F/82˚C fluid and 120˚F/49˚C ambient.

O442P/O443P

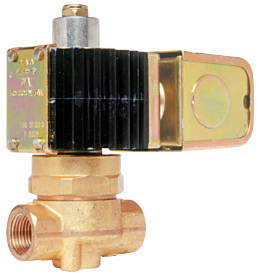
O463PS/O464PS

MODEL #	BODY	ORIFICE	CV
OP442/OP443	Celcon	1/4"	1
0442P/0443P	Brass	1/4"	1
OPP442/ OPP443	Polypropylene	1/4"	1
0463PS/0464PS	303 SS	3/8"	2

High Pressure Valves

NORMALLY OPEN
APPLICATION: Water, air, light oil, noncorrosive & nonexplosive liquids.
(S) designates stainless steel sleve
BODY: Brass
SEAL: Teflon
MOPD: Max 1000 PSI Min 10 PSI

Valves rated 200F/93C fluid, 120F/49C ambient



O453P

MODEL #	PIPE SIZE	ORIFICE	CV
0453P	3/8" NPT	7/20"	1.8
0453S	3/8" NPT	7/20"	1.8

Pilot Piston Valve

NORMALLY OPEN
APPLICATION: Water, air, light oil, noncorrosive & nonexplosive liquids.
BODY: Brass
SEAL: Teflon
MOPD: Max 150 PSI Min 3 PSI

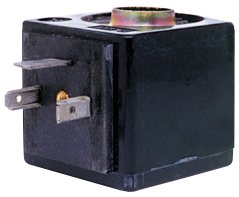
O412P

MODEL #	BODY	ORIFICE	CV
0412P	Brass	9/32"	1.2
OA414P	Brass	7/16"	3.1

For valve reference and repair kits see page 25

Coil Options

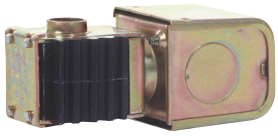
Junction Box and Spade Coils rated NEMA 1, Conduit and Din Coils NEMA 4



DIN
#1 Coil

DIN
#2 Coil

Conduit
#1 & #2 Coils Only



Junction Box
#1 & #2 Coils Only

Molded Spade
#5 & #7 Coils Only

Flying lead coil
#5 & #7 Coils Only

For more information on coils see page 25

Connection Options

59.98 NEMA 4 Wiring Connector
for #5 & #7 Spade Coils 18" Leads. Other lengths available on request.

41.77.100110
DIN Female connector
Additional connectors with alternate size and wiring available by special order.

41.77.100110.24.US
DIN Wired 24" Female connector
Additional wiring lengths available by special order.

Y-Type Line Strainers

For use in waterlines ahead of solenoid valves, chemical injectors, spray nozzles, or any equipment where operation could be impaired by foreign matter.

- Large capacity screen has open area 3 times the pipe area.
- Quick cleaning: screen assembly easily removed.
- Corrosion resistant stainless steel screen.

Brass or Cast Bronze
For water applications and other liquids.

MODEL #	PIPE SIZE	MAX PRESSURE**
S2B	1/4"	300 PSI
S3B	3/8"	300 PSI
S4B	1/2"	300 PSI
S6B	3/4"	300 PSI
S10B	1"	300 PSI

Add .40 for 40 Mesh or add .80 for 80 Mesh
**Pressure is derated to 150 PSI when fluid is above 150F

S2B

S6B

S10B

Water Powered Proportioning Pump

MixRite water driven injectors are water powered proportioning pumps that require no electricity and deliver accurate dispensing across varying water pressure and flow. MixRites use only 10% of the pressure at mid-range to drive the pump (20% maximum) and are easy to adjust and service.

Applications:

- Vehicle wash.
- Food and beverage sanitizing, cleaning, and lubricating.
- Machine tool coolants and metal processing.
- Foodservice sanitation.
- Fertigation (fertilizer/irrigation injection).
- Other applications require applying liquid under pressure.

Specifications:

- Chemical resistant nylon with a reinforced fiberglass body on all models (except PVDF).
- CW models feature stainless steel springs.
- PVDF models feature hastelloy springs.
- Chemical shutoff on 571, 573, and M units.
- Easily replaceable wear parts.
- Higher operating ranges from 2.9 PSI to 120 PSI.
- Hose barbs with swivel for easy installation.
- Injection range from 1000:1 to 10:1 (.1% to 10%).
- Flow rate from .05 to 14 gallons per minute.
- Includes 7 ft. 3/8” inlet tubing with foot valve strainer.

571CW

1410A

1401M

570PVDFIN

	MODEL #	PSI	RATIO	PERCENT	OZ/GAL	CHEMICAL ON/OFF	APPLICATIONS
11 GPM	566AG	2.9 - 120	1:100	1% Fixed	1.28	No	Food & beverage, fertilization, vitamins, mild chemicals
	568AG	2.9 - 120	1:128	.8% Fixed	1	No	Food & beverage, fertilization, vitamins, mild chemicals
	569CWON/OFF	2.9 - 120	1:1000 to 1:111	.1%-.9%	13 to 1.2	Yes	Carwash cleaning agents & detergents
	579PVDFON/OFF	2.9 - 120	1:1000 to 1:111	.1%-.9%	13 to 1.2	Yes	Carwash cleaning agents & detergents
	570CW	2.9 - 120	1:333 to 1:50	.3% - 2%	.38 to 2.5	No	Option carwash cleaning agents & detergents
	570PVDFIN	2.9 - 120	1:333 to 1:50	.3% - 2%	.38 to 2.5	No	Option carwash cleaning agents & detergents
	571CW	2.9 - 120	1:333 to 1:50	.3% - 2%	.38 to 2.5	Yes	Carwash cleaning agents & detergents
	571PVDFIN	2.9 - 120	1:333 to 1:50	.3% - 2%	.38 to 2.5	Yes	Carwash cleaning agents & detergents
	572CW	2.9 - 120	1:250 to 1:25	.4% - 4%	.51 to 5.1	No	Carwash cleaning agents & detergents
	573CW	2.9 - 120	1:250 to 1:25	.4% - 4%	.51 to 5.1	Yes	Carwash cleaning agents & detergents
	573PVDFIN	2.9 - 120	1:250 to 1:25	.4% - 4%	.51 to 5.1	Yes	Carwash cleaning agents & detergents
14 GPM	1400A	2.9 - 120	1:3000 to 1:500	.03% - .2%	.04 to .25	No	Tire cleaners, chlorine, & other harsh chemicals
	1400M	2.9 - 120	1:3000 to 1:500	.03% - .2%	.04 to .25	Yes	Tire cleaners, chlorine, & other harsh chemicals
	1401A	2.9 - 120	1:1000 to 1:111	.1% - .9%	.128 to 1.15	No	Tire cleaners, chlorine, & other harsh chemicals
	1401M	2.9 - 120	1:1000 to 1:111	.1% - .9%	.128 to 1.15	Yes	Tire cleaners, chlorine, & other harsh chemicals
	1402A	2.9 - 120	1:333 to 1:50	3% - 2%	.38 to 2.5	No	Tire cleaners, chlorine, & other harsh chemicals
	1402M	2.9 - 120	1:333 to 1:50	3% - 2%	.38 to 2.5	Yes	Tire cleaners, chlorine, & other harsh chemicals
	1405A	2.9 - 120	1:100 to 1:20	1% - 5%	1.28 to 6.4	No	Tire cleaners, chlorine, & other harsh chemicals
	1405M	2.9 - 120	1:100 to 1:20	1% - 5%	1.28 to 6.4	Yes	Tire cleaners, chlorine, & other harsh chemicals
	1410A	2.9 - 120	1:100 to 1:10	1% - 10%	1.28 to 12.8	No	Tire cleaners, chlorine, & other harsh chemicals
	1410M	2.9 - 120	1:100 to 1:10	1% - 10%	1.28 to 12.8	Yes	Tire cleaners, chlorine, & other harsh chemicals

57.11.1 - Tip Kit
for use with 570 and 571 units
For lean dilution ratios 1:750 to 1:2000. Includes 4 metering tips, 8 ft. 1/4" vinyl tubing, and 1/4"x3/8" barb adapter.

50.42.1 - Tee Assembly
Tee adapter to induct two chemicals simultaneously.

294DC.DS and 93.18
Compressed Air Foamer and Wand
Compressed air foamer and wand can be used with any MixRite air, and an outlet hose to produce dry shaving cream foam.

38030200001 - PRESSURE REGULATOR
Fits in-line with any MixRite to limit pressure spikes. (gauge not included)

57.UFR - Low Flow Booster
Works with any 500 Series MixRite to make units work at less than .5 GPM.

36073008002 - Anti-Siphon Kit
For any MixRites in-line to break vacuum so chemical will not siphon out of drum or tank.

57.20.8 - 3/4" Check Valve
Check valve helps limit backflow situations if the unit is being used to pump the mixture a distance or over walls.

57.34FT - 3/4" White Foot Valve Strainer
3/4" foot valve strainer prevents debris from entering the unit through the chemical inlet tubing.

50.41.1 - 3/4" Strainer
200 mesh (80 micron) strainer is recommended on all installations.

28.1QD and 292GQD
The DEMA Spray Gun and Foam Wand set is a simple but effective foam application system. Easily connect to a MixRite with a standard garden hose to begin foaming. To rinse off surfaces, simply remove the Foam Wand and use the Spray Gun.

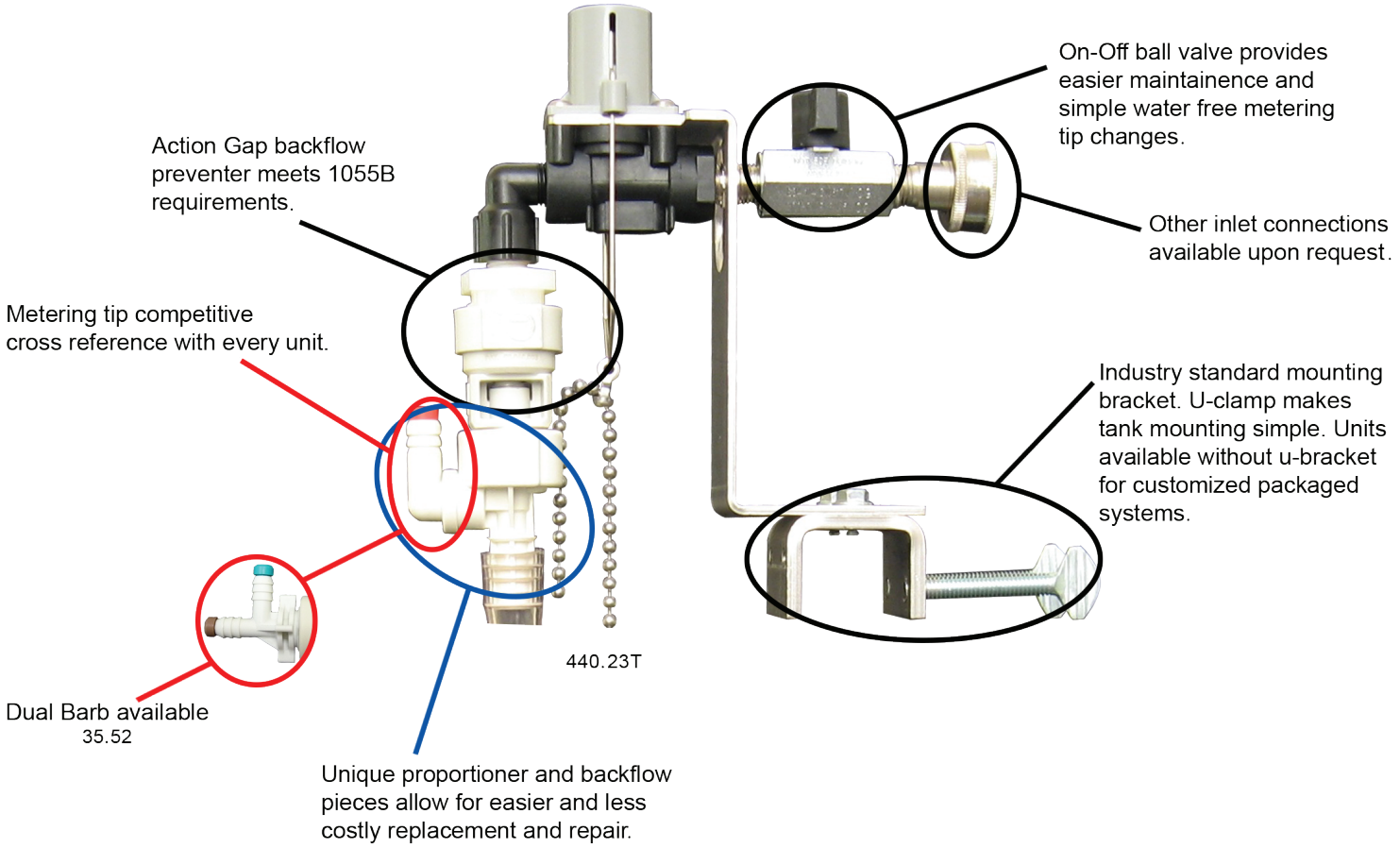
Water Supply Hoses
DEMA manufactures a variety of water inlet hoses for different applications. DEMA inlet hoses are rated to 200psi, made of durable double-walled rubber, and crimped to our manufacturing facility specifications.

For more information see page 31

Float Valves

Automatically maintains the desired level of proportioned mixture in any drum, tank, or other type reservoir. Magnetically activated “snap acting” float valves provide full water flow to activate the chemical proportioners. Ideal for car washes, carpet cleaning machines, and rapid filling of totes.

WATCH GUARD



Chemical Proportioning

MODEL #	SEAL	PRESSURE	DESCRIPTION	FLOW RATE	MAX. INDUCTION	MIN. INDUCTION
440.23BT*	EPDM	Max 150 psi Min 15 psi.	Float valve w/ small barb and tip	4 GPM at 50 psi	1:7	1:387
440.23T*	EPDM	Max 150 psi Min 15 psi.	Float valve w/ large barb and tip	4 GPM at 50 psi	1:4	1:430
440.22T*	EPDM	Max 150 psi Min 15 psi.	Std. Hose. float valve w/ large barb & tip, no backflow preventer	4 GPM at 50 psi	1:4	1:430
440.24*	EPDM	Max 150 psi Min 15 psi.	Std. Hose. float valve, high induction, medium flow	2.5 GPM at 50 psi	1:2	1:145
437P.21*	Buna N	Max 150 psi Min 15 psi.	3/4” N.P.T. float valve high flow, induction	22 GPM at 50 psi	1:10	1:512

* Add “X” to part number for units without U-Bracket for OEM mounting.

Water Fill Valve Systems

MODEL #	CONNECTION	DESCRIPTION	FLOW RATE
440N	Garden Hose	low flow water fill	6.0 GPM
437PN	3/4” NPT	high flow water fill	64.0 GPM

437PN

Inline Chemical Injectors for injecting fluids or air into lines conveying liquid under pressure.

The DEMA injector is a jet pump. A liquid under pressure enters the injector and accelerates into a jet through the nozzle. This high velocity jet creates a vacuum, which causes fluid to be drawn through the suction tube and into the injector. The mixture then flows into a diverging (diffuser) passage where pressure is recovered as the flow slows down. A portion of the energy of the water is imparted to the injected fluid so the reconverted pressure cannot be as high as the pressure supply. In effect the fluid is pumped into the waterline; the reduction in pressure reflects the energy required to operate the "pump".
A minimum 35% pressure drop is required to create the vacuum.

Advantages of the Injector
Injectors have no moving parts, nothing to wear out or lubricate, resulting in extremely low maintenance. They are compact, need no foundation or mounting bracket, and can be installed in any position. Injectors require no wiring, are self-priming, and need no bleeding or filling. The injection rate is simple to set and can be quickly adjusted during operation. There is nothing to drain for seasonal shutdown.

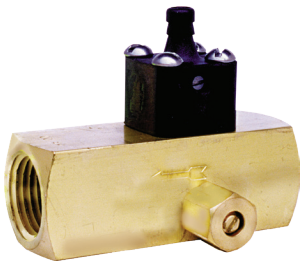
General Information
Standard C series have a molded Ryton knob with a stainless steel metering screw. For special requirements add the following suffixes to the model number.
P: Special C20 stainless steel metering screw for highest corrosion resistance.
S: Stainless steel knob for high pressures (over 700psi).
T: Uses metering tip kit.
All injectors have a check valve to prevent backflow into the fluid container when there is no water flowing or while rinsing. An 8 ft. length of flexible vinyl suction tubing with a foot strainer is supplied with most units.

Application and Selection
DEMA injector selection must be based on the water flow and pressure at the location where the injector is to be installed.
DO NOT size the injector by pipe size. If these quantities are known, choose the correct model from tables on pages 27 through 30. If these quantities are not known, it is permissible to use spray nozzle rating at any pressure for selection. Once an injector has been matched to a spray nozzle system, it will continue to function regardless of fluctuations in line pressure, as the water flow will also fluctuate in proportion. Flow rating of 40 psi is the basis of the spray nozzle numbering system and is, therefore, most frequently used. Lengthy piping, hose, or other restrictions resulting in pressure loss must be added to the rated pressure before selection.

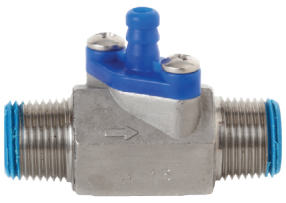
Injection Capabilities
Every injector is supplied with a metering screw or metering tips (T) for setting injection rates within maximum and minimum capacities. Maximum injections of viscous fluids (above 75cps) can be increased by ordering the high induction metering knob kit, p/n 24.56 (see below).

HIGH INDUCTION METERING KNOB KIT No. 24.56, 24.56T, 24.56S
Higher induction rates (especially of viscous liquids) can be obtained by replacing the standard metering knob with a high capacity metering knob and check valve parts.

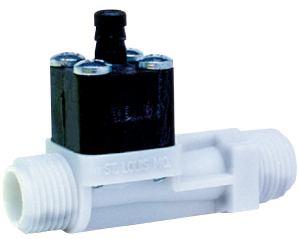
Drum Mounting Kit No. 24.32.DM
Allows injector sizes up through 204C to be mounted directly on a drum or tote with a 2 inch bung.



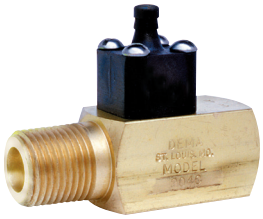
204B



211.086



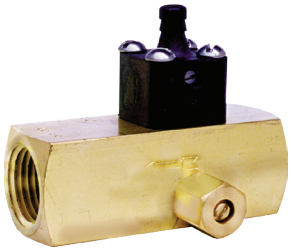
P203C



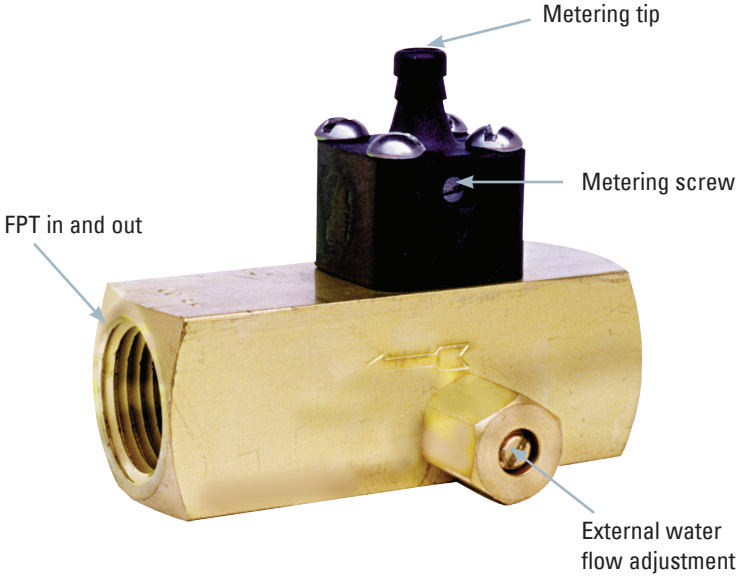
204C

B Series Injectors

- Externally adjustable injectors with water flow ranges.
- External adjusting screw for easy compensation to system variations.
- Efficiently adjusts to flow or pressure changes after installation.
- Allows system to operate at maximum performance level without a teardown.
- Useful in high pressure pump discharge line applications when it is desired to keep pressure loss to a minimum.
- 23.32ST 3/8" SS Barb.
- 24.32ST 1/4" SS Barb.



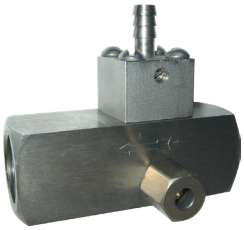
204B



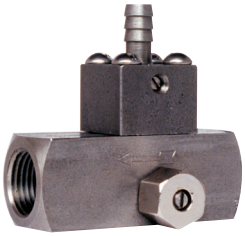
METERING SCREW MODEL #	METERING TIP MODEL #	PIPE SIZE	MAX INJ.	FLOW AT 200PSI
202B	202BT	3/8 NPT	8oz/min	.73-5.7
203B	203BT	3/8 NPT	16oz/min	1.4-11
204B	204BT	1/2 NPT	30oz/min	5.7-19
206B	206BT	3/4 NPT	42oz/min	11-39

INLET PRESSURE	OPERATING RANGE - GALLONS PER MINUTE (GPM)			
PSI	202B	203B	204B	206B
10	.25 - 2.0	.5 - 3.5	2 - 6.4	3.6 - 11
20	.3 - 2.3	.55 - 4.4	2.3 - 7.5	4.2 - 13
40	.37 - 2.9	.7 - 5.4	2.9 - 9.0	5.3 - 17
60	.43 - 3.4	.8 - 6.4	3.4 - 11	6.2 - 19
100	.54 - 4.2	1.0 - 8.0	4.2 - 14	7.7 - 24
200	.73 - 5.7	1.4 - 11	5.7 - 19	11 - 33
400	1.0 - 7.9	1.9 - 15	7.9 - 26	15 - 46
500	1.2 - 8.9	2.1 - 17	8.9 - 29	17 - 51
700*	1.4 - 11	2.5 - 20	11 - 35	20 - 60
1000*	1.6 - 13	3.0 - 23	13 - 41	23 - 70
1500*	2.0 - 16	3.5 - 28	16 - 50	28 - 87
2000*	2.2 - 18	4.7 - 37	18 - 58	33 - 100
3000*	2.7 - 20	5.0 - 45	20 - 70	40 - 100

* For pressure over 700 PSI, use stainless steel metering knob



204BS.2
303 SS (same flow as 204B)
All stainless steel version of the 204B available with metering tips.



203BS.2
303 SS (same flow as 203B)
All stainless steel version of the 203B available with metering tips.

Special Injectors for Corrosive Applications

P203C
Polypropylene Plastic
(same flow as 203C with # 11 nozzle bushing)
125 PSI maximum pressure

A chemical resistant unit. Seals can be customized to chemical being used in unit.

Fluid Viscosity CPS	MAXIMUM INJECTION OUNCES PER MINUTE 202B	203B	204B	206B
1	8	16	36	42
75	4	8	13	18
220	2	4	5	8
500	1	2	2	4
1000	0.5	1	1	1

Add suffix "T" for metering tip knob
For highly viscous fluids order part #24.56, 24.56T or 24.56S high induction metering knob kit on page 14

C Series Injectors

Application Pressure:
Use ryton metering knob and check valve core when pressures are 700 PSI (48 Bar) water at room temperature or 500 PSI (34 Bar) water at 150 degrees F (66 degrees C) or lower. Use stainless steel metering knob (S) for high pressure (700-3000 PSI or 48-204 Bar).

Chemical adjustment:
Metering screw standard on “C” Series injectors (i.e. 204C). Metering tips are color-coded orifices of different sizes used to proportion the chemical (add a “T” to the model number (i.e. 204CT).

Metering knob assembly (bolted onto the body with four screws) can be oriented in any direction for ease of access in tight spots. Small (1/4 inch barb) and large (3/8 inch barb) metering knobs are interchangeable on all inline injectors.

204C

208C

Each injector is supplied with 3 water nozzle bushings (Figure No. 1) for precise sizing of the injector to water flow within the ranges shown. Nozzle selection is specified in the installation instructions included with each injector. All injectors are equipped with a metering screw or metering tips to adjust injection rate up to figures shown in tables on page 27.

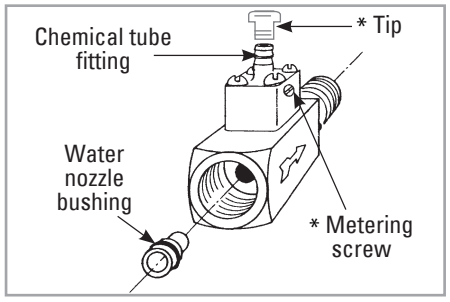
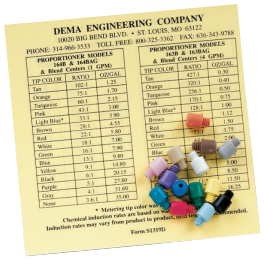


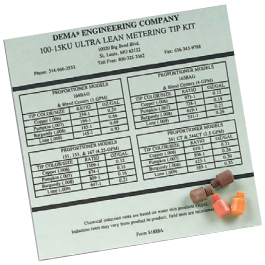
Figure No. 1

* Metering Knobs are either screw or tip type, not both.

MODEL #	PIPE SIZE	MAX INJECTION	FLOW AT 300 PSI
200.3C	1/8” NPT	3 oz/min	.37–.76 GPM
200C	1/8” NPT	5 oz/min	.76–1.5 GPM
201C	1/8” NPT	7 oz/min	1.5–2.9 GPM
202C	1/4” NPT	11 oz/min	2.9–6.0 GPM
203C	3/8” NPT	21 oz/min	6.0–12 GPM
204C	1/2” NPT	30 oz/min	12–24 GPM
206C	3/4” NPT	55 oz/min	24–47 GPM
208C	1” NPT	60 oz/min	47–94 GPM



100.15K



100.15KU

100.15K	Tip kit
100.15KU	Ultra lean tip kit
44.61P	Capillary metering tip for lean dilutions

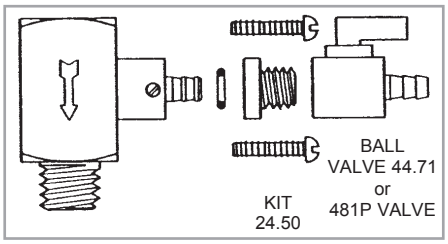


Figure No. 2

PIPE ADAPTER KIT No. 24.50
FOR MOUNTING A VALVE ON THE INJECTOR CHEMICAL TUBE FITTING: Model 44.71 PVC Ball Valve or **Model 481P Solenoid Valve** *(Figure No. 2)* May be placed in the chemical supply line to turn the chemical supply on or off.

DEMA Kit 24.50 slips over the metering knob barb and provides a 1/8” MNPT (Male National Pipe Thread for the valves to screw directly onto the metering knob for models 200.3C through 204C.

Models 206 and 208 use metering knob part number 23.33.1.

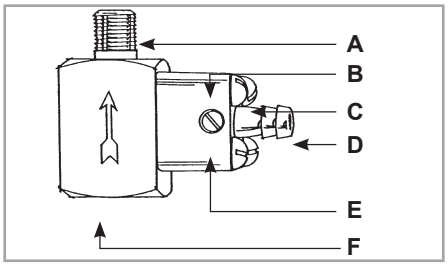


Figure No. 3

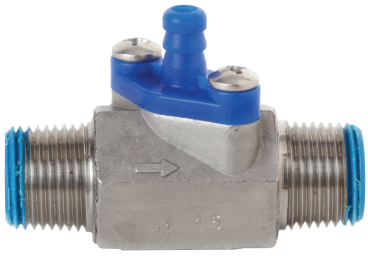
A. MNPT Outlet (Male National Pipe Taper)
B. Metering Knob
C. Mounting screws
D. Metering Tip (optional, add a “T” to the model number if you want metering tips for chemical adjustment)
E. Metering Screw (is standard when metering tips are not specified)
F. FNPT Inlet (Female National Pipe Taper)

For more information see page 27

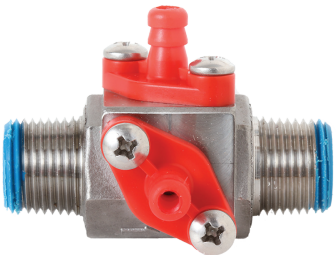
The Rocket injector was designed to be the most versatile venturi injector in the marketplace. Designed to be serviceable and last a lifetime. The Rocket is the most efficient competitive injector, with the lowest pressure loss amongst competitive units, delivering more pressure for any application. It enables cleaning at greater pressure while consuming less chemical. With the use of a removable nozzle and metering barb, it makes maintenance and repair extremely simple, extending the life of the injector and reducing the cost of ownership. It has the greatest range of any injector on the market. It leads the industry by running the breadth of operating pressures and by covering the extreme range of dilution ratios.

Features & Benefits:

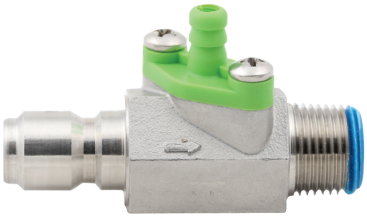
- Removable metering barb for ease of maintenance and repair.
- Color coded metering barb to easily identify nozzle orifice size inside injectors.
- Teflon ball for chemical compatibility and check valve to keep chemical at the injector.
- Injection molded polypropylene to protect stainless steel body.
- Hastelloy spring for robust chemical compatibility.
- Ryton nozzle and Aflas seals for highest chemical compatibility.
- Stainless steel cast body for strength.



Single Barb



Dual Barb

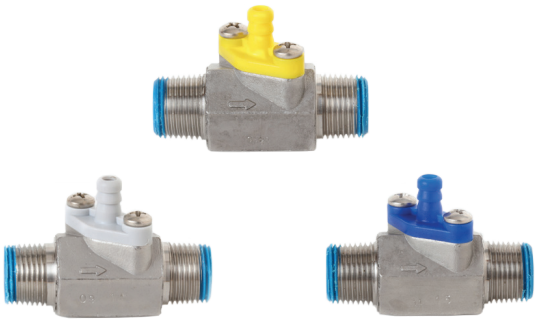


Quick Connect

QC Rocket with connect fitting

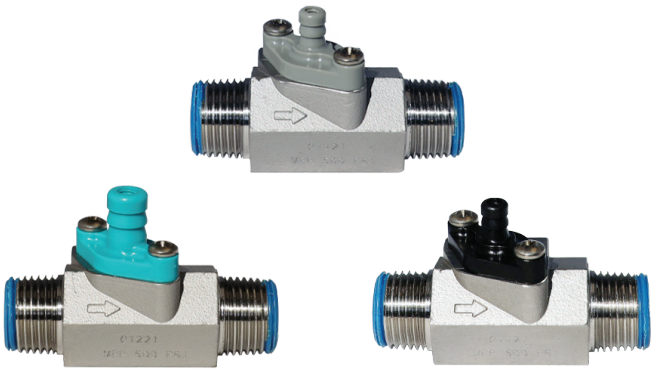
Low Flow Rocket

These low flow Rockets (1/4 GPM, 1/2 GPM, and 3/4 GPM) are perfect for low flow applications. They have a higher pressure drop to accomplish the vacuum pulled by the venturi. They still have all the great benefits of the rocket injectors that the industry has come to love.



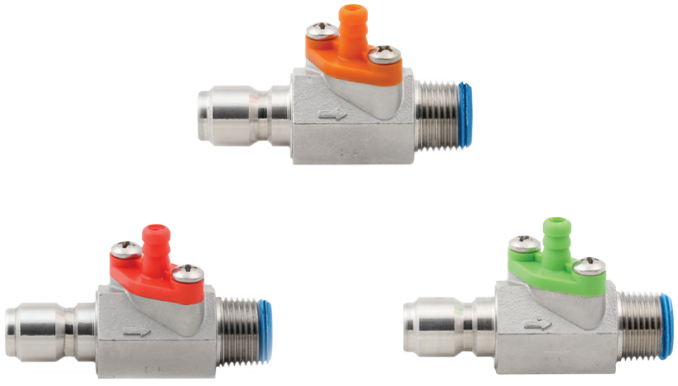
Rocket XL

Rocket XL is designed for larger 1/2” NPT pipe sizes with 1/4” or 3/8” metering barbs for a wide variety of different chemistries. Single and dual barbs are available as well.



QC Rocket

The QC Rocket is the industry’s first quick connect injector utilizing a standard quick connect fitting. The standard quick connect is available off the shelf from many different sources and makes your Rocket ready to fly faster than ever before. The Ryton nozzle is still removable with a 7/32” Allen wrench and the barb is still able to be taken off and cleaned out when necessary.

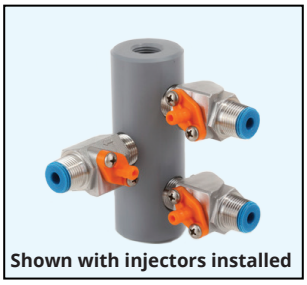


Rocket Complete Listing

SINGLE BARB	DUAL BARB	QC SINGLE	QC DUAL	FLOW RATE @ 200 PSI	FLOW RATE @ 100 PSI	COLOR	FLOW ORIFICE	METERING TIPS
211.029	221.029	311.029	321.029	0.30 GPM	0.25 GPM	White	0.029"	1/4"
211.040	221.040	221.040	321.040	0.55 GPM	0.40 GPM	Yellow	0.040"	1/4"
211.051	221.051	311.051	321.051	0.85 GPM	0.60 GPM	Tan	0.051"	1/4"
211.057	221.057	311.057	321.057	1.1 GPM	0.80 GPM	Red	0.057"	1/4"
211.070	221.070	311.070	321.070	1.7 GPM	1.3 GPM	Orange	0.070"	1/4"
211.083	221.083	311.083	321.083	2.4 GPM	1.6 GPM	Grey	0.083"	1/4"
211.086	221.086	311.086	321.086	2.6 GPM	1.75 GPM	Blue	0.086"	1/4"
211.098	221.098	311.098	321.098	3.4 GPM	2.3 GPM	Light Green	0.098"	1/4"
211.116	221.116	311.116	321.116	4.3 GPM	3.2 GPM	Purple	0.116"	1/4"
211.125	221.125	311.125	321.125	5.3 GPM	3.7 GPM	Dark Green	0.125"	1/4"
211.136	221.136	311.125	321.136	6.1 GPM	4.1 GPM	Brown	0.136"	1/4"
211.161	221.161	**Quick Connect not currently available in these sizes**		8.7 GPM	6.4 GPM	Dark Grey	0.161"	1/4"
213.161	223.161			8.7 GPM	6.4 GPM	Dark Grey	0.161"	3/8"
211.177	221.177			10.6 GPM	7.6 GPM	Teal	0.177"	1/4"
213.177	223.177			10.6 GPM	7.6 GPM	Teal	0.177"	3/8"
211.185	221.185			11.4 GPM	8.5 GPM	Light Orange	0.185"	1/4"
213.185	223.185			11.4 GPM	8.5 GPM	Light Orange	0.185"	3/8"
211.206	221.206			14.2 GPM	10.6 GPM	Black	0.206"	1/4"
213.206	223.206			14.2 GPM	10.6 GPM	Black	0.206"	3/8"

Accessories

21.002
3/8" NPT inlet by 3 3/8" NPT outlet



21.HQCA
3/8" FNPT Adapter

21.RQCC
3/8" NPT x 3/8" FQC Fitting

S4B - Y Strainer
1/2" NPT for inlet to manifold to protect valves and injectors

Repair Kits

Nozzle and Barb Kits for Single Barbs

21.xxx
(orifice size)

Nozzle and Barb Kits for Dual Barbs

22.xxx
(orifice size)

Check Valve Kits

21.001	Single Barb Kit
22.001	Dual Barb Kit

For more information see page 28-30

Fusion System

Fusion is the evolution of decades of innovation in water-driven dispensing technology smartly designed to make installations fast and easy. Servicing a Fusion, compared to others, is simpler and far less frequent. Sleek and attractive by design, Fusion is powered by DEMA's all-new pilot water valve, which is reliable, smaller, and more efficient.

644G.B1A.E0 Bottle Fill

644G.Y1C.E0 Bucket Fill

Features and Benefits:

- Innovative design for the modern industrial environment.
- Large push button for easy activation with optional lock-on for bucket filling.
- Premium branding space for chemical and company labels.
- Multiple options for branding, color coding, and custom molding.
- Six stocked button colors: black, white, blue, red, green, and yellow.
- Easy to install with integrated bubble-level and keyhole slots.
- Easy to service with plug-n-play tool-less components:
- Cover releases with a simple push and lift.
- Easy access to the diaphragm for fast preventative maintenance.
- U-clips allow for quick coupling of multiple Fusion dispensers.

MODEL #	BOTTLE OR BUCKET	BUTTON COLOR
644G.A1A.E0	Bottle Fill	Black
644G.A1C.E0	Bucket Fill	Black
644G.W1A.E0	Bottle Fill	White
644G.W1C.E0	Bucket Fill	White
644G.B1A.E0	Bottle Fill	Blue
644G.B1C.E0	Bucket Fill	Blue
644G.R1A.E0	Bottle Fill	Red
644G.R1C.E0	Bucket Fill	Red
644G.G1A.E0	Bottle Fill	Green
644G.G1C.E0	Bucket Fill	Green
644G.Y1A.E0	Bottle Fill	Yellow
644G.Y1C.E0	Bucket Fill	Yellow

High Flow Fill Station

607.3 High Flow Dispenser fills Auto Scrubbers and other large reservoirs at 10 gallons per minute (40 liters per minute) to reduce fill time.

- 10 GPM flow rate at 40 psi (3/4 or larger water supply required).
- Vacuum breaker installed.
- 10 feet discharge hose.
- Metering tips determine dilution ratio.
- Stainless steel cover offers durability and industrial appearance.
- PVC proportioner allows dual chemical injection.

607.3

681 Blend Centers

681 units are chemical dispensing units with SS covers. Great for industrial and detailing applications. Models listed below include 4 GPM (16 liters/minute) proportioners but can be ordered with any combination of high/low flow.

681GAP.3P

681GAP.2

MODEL #	CHEMICALS	COVER MATERIAL
681GAP.1	1	Stainless Steel
681GAP.2	2	Stainless Steel
681GAP.3	3	Stainless Steel
681GAP.4	4	Stainless Steel
681GAP.5	5	Stainless Steel

DEMA One

DEMA has developed an open feed portable dispenser designed for multiple product use. The DEMA One threads onto a 38mm neck bottle and has a dip tube attachment. It will work with ½ gallon (2L), 1 gallon (4L), and 2.5 gallon (5L) bottles and available for custom sized bottles as well.

MODEL #	SINGLE FLOW/DILUTION
DM1S.1	Low Flow
DM1S.3	High Flow
DM1SS.1	Basic Spray
DM1SS.2	Premium Spray
MODEL #	**MULTI FLOW/DILUTION**
DM1D.1	High Flow
DM1D.2	Basic Spray w/Rinse
DM1DS.4	Premium Spray w/Rinse

302 Series Hand Pump

Designed to pump 1 or 2 ounces (30 or 60 milliliters) of chemical into a sink, bottle, laundry machine, or any open container where chemical is mixed with water. Each push delivers 1 or 2 ounces with the pump automatically maintaining its prime for future use.

302.1E

302.2S.SP

Features and Benefits

- 1 or 2 ounce pumps available (30 or 60 milliliters).
- Polypropylene body and polyethylene bellows for chemical resistance.
- Epdm, silicone, or viton seals available on check valves.
- Chemical does not come in contact with spring.
- Mounts on any vertical or horizontal surface.
- Optional spout available (part number 30.81.1).

MODEL #	FLOW	CHECK VALVE SEAL
302.1E	1 oz (30 ml)	EPDM
302.1S	1 oz (30 ml)	Silicone
302.1V	1 oz (30 ml)	Viton
302.2E	2 oz (60 ml)	EPDM
302.2S	2 oz (60 ml)	Silicone
302.2V	2 oz (60 ml)	Viton

Drum Mount Dispensers

Model 161 and 162 Series drum mount dispensers mount to any 2 1/2" bung opening to dispense chemical solution directly from the drum or tote at the correct dilution. Various models are available to meet standard and high induction applications.

162 Standard model dispenses 5 GPM (20 liters per minute) with maximum induction of 5-1, metering screw adjustment.

162.3 Standard model dispenses 5 GPM with a maximum induction of 5-1, metering tip adjustment.

161 High induction model dispenses 5 GPM with a maximum induction of 1.5-1, brass construction with metering screw adjustment.

162HC High induction model dispenses 1/2 gallon per minute (2 liters per minute) with a maximum induction of more than 1-1 ratio. Ideal dispenser for applications such as antifreeze mixing where more product than water is required.

162HDM.2 High Flow Drum Mount Proportioner mounts directly to a 2 1/2" bung opening on a drum or tote and dispenses at 10 gallons per minute (40 liters per minute). Draws up to 12 ounces per gallon chemical solution and discharge hose can be up to 25 feet (8 meters) long. Shutoff valve (DEMA 90.15) can be put at end of hose for on/off control and uses metering tips to determine dilution ratio.

162HDM.2

162HC

162HDM.2

294D
PVC Compressed Air Foamer body with air inlet port, air adjustment gauge, water inlet connection, and tubing for chemical supply. Simply hook up compressed air and water and adjust to produce desired foam. Metering tips determine correct chemical dilution. The Minimum recommended air and water pressure with 25 feet of hose is 40 psi.

294DC
Designed for applications that require a compressed air foamer enclosed in a Stainless Steel housing and ball valves for on/off control of water and air. Air pressure gauge is seen through the front cover and easily adjusted while the unit is mounted. Metering tips determine the correct chemical dilution.

93.18
PVC Foam wand used with all DEMA compressed air foamers. Includes water inlet coupling, ball valve for on/off control nozzle. Foam throw varies based on water and air pressure mixture. The average throw is 25 feet (8 meters).

900.WALL
The wall mounted foamer operates with a pre-mix solution of foaming chemicals and water. The unit produces 30 gallons of foam per minute and covers 5-10 cubic feet per minute at 40-80 PSI with up to 35 feet of foam distance.

900.5L
This handheld foamer is great for spot cleaning and foaming in small applications. This unit could be used in detail shops, for tire cleaning, in food and beverage sanitation, or any use where spray and foaming is needed.

900.DS4
The doorway sanitizer foaming system allows the control box to be mounted up to 150 feet away from the spray tip assembly. The new foam enhancing nozzle is constructed of Stainless Steel and produces large amounts of foam. This allows for shorter run times and a larger foam coverage area. The 900.DS4 can operate up to three nozzle assemblies simultaneously.

900.2PU
The pump-up foamer technology provides spot cleaning and sanitation solutions for the industrial and institutional markets. Draws the chemical and air from the tank creating thick foam when mixed at the trigger operated foam wand.

910N
The 910 and 920 offer an innovative tank design that allows for easy storage and institutional foam cleaning. The non-pressurized tank promotes safety and consistent foam time after time. 10 and 20 gallon versions are available.

925N
The 25 gallon portable foamer offers innovative features and ergonomics for industrial and institutional foam cleaning. This unit's four-wheel design allows for a wide range of mobility and the convenient drain feature allows for easy drainage.

Foam Accessories

28.1QD & 292GQD
Spray Gun and Wand set

40.14QD/292QD
Spray Gun and Foam Wand

Hoses

44.3N.25
25 Feet (8 meters) nylon braided outlet hose

44.3
25 Feet (8 meters) black outlet hose

44.3RG (shown)
25 Feet (8 meters) red outlet hose

44.3N.6
6 feet (2 meters) nylon braided water supply hose

44.3.6 (shown)
6 feet (2 meters) black water supply hose

44.4S
Stainless Steel hose bracket

Easy Dose

Our decades of knowledge and experience in electronics and metering chemical injection has created a simplistic yet highly advanced chemical injector to exceed the requirements for a wide variety of applications. Thanks to the rugged chemical durability of our pump components, EasyDose can be used in applications ranging from fertilization, water treatment, acid injection, cleaning chemicals and much more. EasyDose uses innovative features such as the DEMA Smart Dosing software, providing accurate proportional dosing over a wide range of flow rates. Our controller and pump module components are housed in outdoor-rated enclosures, designed for the harshest of temperatures and climate.

Controller

Pump

Analog Flow Meter

Features and Benefits:

- Prewired for 115/230VAC (smart voltage hookup, no switching required) or 12VDC.
- Electronic control system for pump speed control.
- One or two pumps, each pumps up to 1.7 GPM (open flow), 1.1 GPM at 60 PSI.
- Drop in chemical reservoir float switch for auto shut off when chemical is depleted.
- Prewired line injection quill.
- Optional analog flow meter to measure chemical injection rate.
- 4-20mA capability to control pump rate.
- Outdoor rated rain resistant electrical enclosures with mounting hardware.
- Modular concept for easy add-on pumps or pump replacement.

MODEL #	DISPENSERS
85AC.DP2	EasyDose – AC 115/230 VAC
85AC.DP2F	EasyDose – AC 115/230 VAC w/Flow Meter
85DC.DP2	EasyDose – 12 VDC
85DC.DP2F	EasyDose – 12 VDC w/Flow Meter

FlexFlow

DEMA's Flex Flow is the ideal solution for water treatment plants, car washes, and other industrial applications to deliver virtually any chemical directly into pressurized water lines. FlexFlow is easy to use and program with state-of-the-art technology that can vary chemical delivery volumes due to water flow and pressure changes for precise downstream solutions.

0960.F

Features and Benefits:

- Two adjustment knobs allow user to choose volume per stroke and strokes per minute.
- Optional dry pulse from water meter for accurate proportional injection across changes in water flow and pressure.
- Manual or automatic adjustment controls.
- Built-in priming value eliminates air in the feed line and potential for inaccurate dilutions.
- Dust cover protects display and keypad.
- Multiple models available.

0960.NANOP

Features and Benefits:

- Small controller for FlexFlow pumps to control pH.
- Used on applications where water quality is essential.
- Multiple output modes to help control a number of different pumps and alarms.
- Float switch option for keeping pumps from running dry.

MODEL #	DISPENSERS
0960.F	FlexFlow for Common Industrial Chemicals
0960.NANOP	FlexFlow contoller NANOP for controlling pH

Rapid Fire Spray and Foam Dispenser

RAPID FIRE™ is the spray cleaning dispenser that uses just one control knob for water flow and chemical selection. The single control prevents mixing of chemicals assuring accurate dilutions and eliminating improper use. The unique design allows complete water flow through the system for full force rinse and the 100% ON / OFF product selection ensures accurate dilutions with full water and chemical flow.

6300.2SS

Effective cleaning and sanitizing for:

- Supermarket meat room, seafood, and bakery departments.
- Kitchens and food preparation areas.
- Locker rooms and showers in schools and health clubs.
- Food processing and packaging plants.
- Brewing and distilling operations.

Features and Benefits:

- Single knob to control water flow and chemical selection.
- Full water flow when valve opens to give accurate dilutions and eliminates confusion.
- Prevents mixing of chemicals.
- Removable Injector for easy maintenance and replacement.
- Built in foam wand hanger to help prevent foam wand loss or damage.

Specifications:

- Operating Range 20-125 psi (1.3 - 8.6 bar).
- Water temperature up to 160°F (71°C).
- Functions with up to 50 feet (15 meters) of 1/2" (13 mm) ID hose.
- Optional hose hanger with hose strain relief feature.
- Stainless steel enclosure and chemical resistant polypropylene internal components.

MODEL NUMBERS AND KITS	
6300	2 product dispenser includes metering tip kit, chemical pick-up tubing, foot valves with weights, wall mounting kit and label pack
6300H	2 product dispenser includes same as 6300 plus stainless steel hose hanger w/strain relief
6300.2SS	2 product dispenser includes same as 6300 plus hose rack, 25' red outlet hose, 6' black inlet hose, ball valve spray gun/foam wand
6300.3	2 product dispenser includes same as 6300 plus hose rack, 25' red outlet hose, 6' black inlet hose, pistol valve spray gun/foam wand
6300.4	2 product dispenser includes same as 6300.2 plus 44.89.112 co stant pressure back flow preventer
6300.5	2 product dispenser includes same as 6300.3 plus 44.89.112 constant pressure back flow preventer
6310	1 product dispenser includes metering tip kit, chemical pick-up tubing, foot valves with weight, wall mounting kit and label pack

ACCESSORIES	
44.3RG	25 feet (8 meters) red hose
44.3N.25	25 feet (8 meters) clear nylon braided hose
44.3.6	6 feet (2 meters) black hose
44.3N.6	6 feet (2 meters) clear nylon braided hose
40.14QD/292QD	Ball valve activated spray gun with quick connect foam wand
28.1QD	Lever controlled spray gun with quick connect nozzle
292GQD	Quick connect foam wand
44.89.112	ASSE 1012 approved constant pressure backflow preventer
44.111.1560	Brass nozzle with quick connect groove
44.111.1560SS	Stainless steel nozzle with quick connect groove
44.6	Stainless steel hose hanger

Electrical Specifications for Coils

	AC						DC		
			AMPERES INRUSH		AMPERES HOLDING				
COIL #	WATTS	VOLTS	50Hz	60Hz	50Hz	60Hz	WATTS	VOLTS	AMPS
Coil No. 1 Used On									
401P, 473P, 474P, 476P,	10	24	1.8	1.5	1.0	.75	15	12	1.25
0473P, 0474P, 0476P,		120	.38	.33	.21	.12		24	0.625
481P, 482.2, 466P		208	.16	.14	.12	.09			
		240	.19	.16	.10	.07			
Coil No. 2 Used On									
411P, 412P, A413P,	15	24	3.7	3.0	1.6	1.2	18	12	1.5
A414P, A416P, A418P,		120	.73	.60	.33	.24		24	0.75
453P, 454P, 458P,		208	.41	.35	.19	.14			
458PS, 0453P, 0453S		240	.36	.30	.16	.12			
Coil No. 5 Used On									
442P, 443P, P442,	10	24		.67		.48	10	12	0.83
P443, P462, P463, 463PS,		120		.15		.102		24	0.42
464PS, 463PSJ, 464PSJ,		240		.075		.05			
P404J									
Coil No. 7 Used On									
491M, 492M, 491S,	10	24		.67		.48	13	24	.54
492S, 492SM, 476PS		120		.15		.102			

Valve Repair Kits

MODEL #	KIT P/N	O-RING	CLOSING SPRING	PLUNGER SPRING	PLUNGER	VALVE SEAT	PISTON RING	BACKUP SPRING	PISTON ASSEMBLY	DIAPHRAGM	VALVE OPERATOR	ENCLOSING ASSEMBLY
401P	41.24	Y		Y	Y	Y						
412P	41.26	Y	Y	Y	Y		Y	Y	Y			
A413P	41.27	Y	Y	Y	Y		Y	Y	Y			
A414P	41.28	Y	Y	Y	Y		Y	Y	Y			
A416P	41.29	Y	Y	Y	Y		Y	Y	Y			
A418P	41.30	Y	Y	Y	Y		Y	Y	Y			
442P & 443P	61.78		Y		Y					Y		
P442 & P443	61.78		Y		Y					Y		
P462 & P463	61.78		Y		Y					Y		
463PS & 464PS	61.78		Y		Y					Y		
OP442 & OP443	4144.1									Y		Y
OPP442 & OPP443	41.44.1									Y		Y
0463PS & OP464PS	41.44.1									Y		Y
453P & 453S	41.31	Y	Y	Y	Y		Y	Y	Y			
454P	41.32	Y	Y	Y	Y		Y	Y	Y			
458P	41.33	Y	Y	Y	Y		Y	Y	Y			
458PS	41.33.2	Y	Y	Y	Y		Y	Y	Y			
0453P & 0453S	41.58	Y	Y				Y	Y	Y		Y	
473P & 0045	41.47	Y		Y	Y					Y		
0473P & 0474P	41.50	Y	Y							Y	Y	
0476P	41.50.1	Y	Y							Y	Y	
476P	41.49	Y		Y	Y					Y		
492M	49.1.8	Y		Y	Y	Y			Y			
464M	61.78V		Y		Y					Y		

Add suffix (B) Buna, (E) EP, (V) Viton i.e. 49.1.8V

MODEL #	ACTION	PRESSURE DIFFERENTIAL MAX PSI	MIN PSI	MAX BAR	MIN BAR	BODY MATERIAL	ORFICE DIA INCHES		PIPE SIZE NPT	CV FLOW FACTOR #	GPM @ 60 PSI (CV # C SQ. ROOT PSI)	LITERS/M@ 4.08 BAR	PAGE NUMBER
Standard Duty													
401P	Direct	150	0	10.2	0	BRASS	7/64	.109	1/4	0.27	2.09	7.92	4
412P	Pilot-Piston	150	1	10.2	0.07	BRASS	9/32	.281	3/8	1.20	9.30	35.20	4
A413P	Pilot-Piston	150	3	10.2	0.20	BRASS	5/16	.313	3/8	2.00	15.50	58.67	4
A414P	Pilot-Piston	150	3	10.2	0.20	BRASS	7/16	.438	1/2	3.10	24.03	90.93	4
A416P	Pilot-Piston	150	3	10.2	0.20	BRASS	19/32	.593	3/4	5.00	38.75	146.67	4
A418P	Pilot-Piston	150	3	10.2	0.20	BRASS	3/4	.750	1	8.00	62.00	234.67	4
Mini Valves Normally Closed													
442P	Diaphragm	125	3	8.5	0.20	BRASS	1/4	.250	1/4	1.00	7.75	29.33	6
443P	Diaphragm	125	3	8.5	0.20	BRASS	1/4	.250	3/8	1.00	7.75	29.33	6
P442	Diaphragm	125	3	8.5	0.20	CELCON	1/4	.250	1/4	1.00	7.75	29.33	6
P443	Diaphragm	125	3	8.5	0.20	CELCON	1/4	.250	3/8	1.00	7.75	29.33	6
P462	Diaphragm	125	3	8.5	0.20	CELCON	1/4	.250	1/4	1.00	7.75	29.33	6
P463	Diaphragm	125	3	8.5	0.20	CELCON	1/4	.250	3/8	1.00	7.75	29.33	6
Mini Valves Normally Open													
OP442	Diaphragm	125	3	8.5	0.20	CELCON	1/4	.250	1/4	1.00	7.75	29.33	9
OP443	Diaphragm	125	3	8.5	0.20	CELCON	1/4	.250	3/8	1.00	7.75	29.33	9
O442P	Diaphragm	125	3	8.5	0.20	BRASS	1/4	.250	1/4	1.00	7.75	29.33	9
O443P	Diaphragm	125	3	8.5	0.20	BRASS	1/4	.250	3/8	1.00	7.75	29.33	9
OPP442	Diaphragm	125	3	8.5	0.20	POLYPROPYLENE	1/4	.250	1/4	1.00	7.75	29.33	9
OPP443	Diaphragm	125	3	8.5	0.20	POLYPROPYLENE	1/4	.250	3/8	1.00	7.75	29.33	9
Diaphragm Valves Normally Closed													
463PS	Diaphragm	150	3	10.2	0.20	303 SS	3/8	.375	3/8	2.00	15.50	58.67	6
464PS	Diaphragm	150	3	10.2	0.20	303 SS	3/8	.375	1/2	2.00	15.50	58.67	6
466P	Diaphragm	150	3	10.2	0.20	NYLON	3/4	.750	3/4	10.00	77.50	293.34	6
473P	Diaphragm	150	1	10.2	0.07	BRASS	9/16	.563	3/8	3.50	27.13	102.67	5
474P	Diaphragm	150	1	10.2	0.07	BRASS	9/16	.563	1/2	4.00	31.00	117.34	5
476P	Diaphragm	150	1	10.2	0.07	BRASS	3/4	.750	3/4	5.00	38.75	146.67	5
476PS	Diaphragm	150	1	10.2	0.07	303 SS	3/4	.750	3/4	5.00	38.75	146.67	5
478PS	Diaphragm	150	1	10.2	0.07	303 SS	1	1	1	13.00	100.70	381.19	5
Diaphragm Valves Normally Open													
O463PS	Diaphragm	150	3	10.2	0.20	303 SS	3/8	.375	3/8	2.00	15.50	58.67	9
O464PS	Diaphragm	150	3	10.2	0.20	303 SS	3/8	.375	1/2	2.00	15.50	58.67	9
O473P	Diaphragm	150	1	10.2	0.07	BRASS	9/16	.563	3/8	3.50	27.13	102.67	9
O474P	Diaphragm	150	1	10.2	0.07	BRASS	9/16	.563	1/2	4.00	31.00	117.34	9
O476P	Diaphragm	150	1	10.2	0.07	BRASS	3/4	.750	3/4	5.00	38.75	146.67	9
Corrosive Liquids													
481P	Direct-Dia.	vac				PVC	5/32	.172	1/8	0.27	2.09	7.92	6
482.2	Direct-Dia.	vac				PVC	5/32	.172	1/4	0.27	2.09	7.92	6
Round Body, Single Station Valves													
492Sxxx	Direct	150	0	10.2	0	303 SS	1/8	.125	1/4	0.27	2.09	7.92	4
Manifold Valves													
492Mxxx	Direct	150	0	10.2	0	BRASS	1/8	.125	1/4	0.27	2.09	7.92	7
492MSSxxx	Direct	150	0	10.2	0	303 SS	1/8	.125	1/4	0.27	2.09	7.92	7
464M	Diaphragm	150	3	10.2	.20	303 SS	3/8	.375	1/2	2.00	15.50	58.67	8
High Pressure Normally Closed													
453P*	Pilot-Piston	1200	10	81.6	0.70	BRASS	7/20	.350	3/8	1.80	13.95	52.80	5
453S**	Pilot-Piston	1200	10	81.6	0.70	BRASS	7/20	.350	3/8	1.80	13.95	52.80	5
454P*	Pilot-Piston	1200	10	81.6	0.70	BRASS	1/2	.500	1/2	3.70	28.68	108.53	5
458P*	Pilot-Piston	1200	10	81.6	0.70	BRASS	15/16	.939	1	11.10	86.03	325.60	5
458PS**	Pilot-Piston	1200	10	81.6	0.70	BRASS	15/16	.939	1	11.10	86.03	325.60	5
High Pressure Normally Open													
O453P*	Pilot-Piston	1000	10	68	0.70	BRASS	7/20	.350	3/8	1.80	13.95	52.80	9
O453S**	Pilot-Piston	1000	10	68	0.70	BRASS	7/20	.350	3/8	1.80	13.95	52.80	9

* stainless steel piston (no sleeve) ** stainless steel sleeve and piston
All high pressure valves with a DC Coil must be derated to 900 psi.

C SERIES INJECTOR SELECTION TABLES

Flow Rate of Injectors at Various Pressures

MODEL #	PIPE SIZE NPT	NOZZLE BUSHING	ORFICE SIZE	INLET PRESSURE 15	30	45	60	75	90	120	150	230	300	390	MAX.INJECTION OZ/MIN *VISCOSITY - CPS 1	75	220	500
200.3C		02	0.026	.10-.12	.13-.16	.15-.19	.17-.21	.19-.22	.21-.26	.24-.30	.26-.33	.31-.37	.37-.44	.41-.49				
and	1/8	03	0.029	.12-.16	.16-.21	.19-.24	.21-.28	.22-.27	.26-.33	.30-.38	.33-.42	.37-.45	.44-.53	.49-.59	3	0.5	0.3	0.2
200.3CT		04	0.033	.16-.20	.21-.26	.24-.30	.28-.34	.27-.39	.33-.41	.38-.47	.42-.52	.45-.65	.53-.76	.59-.85				
200C		1	0.037	.20-.25	.26-.32	.30-.38	.34-.43	.39-.46	.41-.52	.47-.59	.52-.66	.65-.77	.76-.91	.85-1.0				
and	1/8	2	0.042	.25-.32	.32-.41	.38-.48	.43-.55	.46-.56	.52-.66	.59-.76	.66 -.84	.77-.92	.91-1.1	1.0-1.2	5	.5	0.5	0.3
200CT		3	0.047	.32-.39	.41-.51	.48-.60	.55-.68	.56-.76	.66-.82	.76-.95	.84-1.0	.92-1.3	1.1-1.5	1.2-1.7				
201C		4	0.053	.39-.49	.51-.64	.60-.76	.68-.86	.76-.96	.82-1.0	.95-1.2	1.0-1.3	1.3-1.6	1.5-1.9	1.7-2.1				
and	1/8	5	0.061	.49-.63	.64-.82	.76-.97	.86-1.1	.96-1.2	1.0-1.3	1.2-1.5	1.3-1.7	1.6-1.9	1.9-2.3	2.1-2.5	7	4	2	1
201CT		6	0.067	.63-.79	.82-1.0	.97-1.2	1.1-1.4	1.2-1.5	1.3-1.6	1.5-1.9	1.7-2.1	1.9-2.5	2.3-2.9	2.5-3.3				
202C		7	0.073	.79-.98	1.0-1.3	1.2-1.5	1.4-1.7	1.5-1.9	1.6-2.1	1.9-2.4	2.1-2.6	2.5-3.2	2.9-3.8	3.3-4.2				
and	1/4	8	0.086	.98-1.3	1.3-1.6	1.5-1.9	1.7-2.2	1.9-2.3	2.1-2.6	2.4-3.0	2.6-3.4	3.2-3.7	3.8-4.5	4.2-5.0	11	6	2.5	1.3
202CT		9	0.094	1.3-1.6	1.6-2.0	1.9-2.4	2.2-2.7	2.3-3.0	2.6-3.3	3.0-3.8	3.4-4.2	3.7-5.0	4.5-6.0	5.0-6.7				
203C		10	0.104	1.6-2.0	2.0-2.6	2.4-3.0	2.7-3.4	3.0-3.6	3.3-4.1	3.8-4.7	4.2-5.2	5.0-6.0	6.0-7.1	6.7-7.9				
and	3/8	11	0.12	2.0-2.5	2.6-3.3	3.0-3.9	3.4-4.4	3.6-4.8	4.1-5.3	4.7-6.0	5.2-6.7	6.0-8.0	7.1-9.1	7.9-10	21	7	3	1.3
203CT		12	0.136	2.5-3.2	3.3-4.1	3.9-4.8	4.4-5.5	4.8-6.1	5.3-6.6	6.0-7.6	6.7-8.3	8.0-10	9.1-12	10-13				
204C		13	0.15	3.2-3.9	4.1-5.1	4.8-6.0	5.5-7.6	6.1-8.2	6.6-8.3	7.6-9.4	8.3-10	10-14	12-15	13-17				
and	1/2	14	0.172	3.9-5.1	5.1-6.6	6.0-7.7	7.6-8.8	8.2-9.6	8.3-11	9.4-12	10-14	14-16	15 -18	17-20	30	8	3.5	1.3
204CT		15	0.187	5.1-6.3	6.6-8.2	7.7-9.7	8.8-11	9.6-13	11-13	12-15	14-17	16-21	18-24	20-27				
206C		16	0.213	6.3-7.9	8.2-10	9.7-12	11-14	13-16	13-17	15-19	17-21	21-26	24-30	27-34				
and	3/4	17	0.242	7.9-10	10-13	12-15	14-18	16-19	17-21	19-24	21-27	26-31	30-36	34-40	55	33	18	12
206CT		18	0.261	10-13	13-16	15-19	18-22	19-24	21-26	24-30	27-33	31-40	36-47	40-52				
208C		19	0.302	13-16	16-20	19-24	22-27	24-30	26-33	30-38	33-42	40-50	47-59	52-65				
and	1	20	0.348	16-20	20-26	24-31	27-35	30-37	33-42	38-48	42-54	50-56	59-66	65-74	60	33	18	12
208CT		21	0.375	20-25	26-33	31-39	35-44	37-48	42-53	48-61	54-67	56-80	66-94	74-99				
Outlet Pressure				10	20	30	40	50	60	80	100	150	200	250				

Flow Rate of Injectors at Various Pressures

MODEL #	PIPE SIZE NPT	NOZZLE BUSHING	ORFICE SIZE	INLET PRESSURE 460	540	620	*700	*770	*930	*1100	*1230	*1540	*2000	*3000	MAX.INJECTION OZ/MIN *VISCOSITY - CPS 1	75	220	500
200.3C		02	0.026	.44-.53	.48-.57	.51-.61	.54-.65	.57-.68	.62-.75	.67-.81	.72-.86	.80-.95	.90-1.1	1.1-1.3				
and	1/8	03	0.029	.53-.64	.57-.69	.61-.74	.65-.78	.68-.82	.75-.89	.81-.97	.86-1.0	.95-1.1	1.1-1.3	1.3-1.6	3	0.5	0.3	0.2
200.3CT		04	0.033	.64-.92	.69-1.0	.74-1.1	.78-1.1	.82-1.2	.89-1.3	.97-1.4	1.0-1.5	1.1-1.7	1.3-1.9	1.6-2.3				
200C		1	0.037	.92-1.1	1.0-1.2	1.1-1.2	1.1-1.3	1.2-1.4	1.3-1.5	1.4-1.7	1.5-1.8	1.7-2.0	1.9-2.3	2.3-2.8				
and	1/8	2	0.042	1.1-1.3	1.2-1.4	1.2-1.5	1.3-1.6	1.4-1.7	1.5-1.8	1.7-2.0	1.8-2.1	2.0-2.4	2.3-2.7	2.8-3.3	5	.5	0.5	0.3
200CT		3	0.047	1.3-1.8	1.4-2.0	1.5-2.1	1.6-2.2	1.7-2.3	1.8-2.5	2.0-2.7	2.1-2.9	2.4-3.2	2.7-3.7	3.3-4.5				
201C		4	0.053	1.8-2.3	2.0-2.5	2.1-2.7	2.2-2.8	2.3-3.0	2.5-3.2	2.7-3.5	2.9-3.7	3.2-4.1	3.7-4.7	4.5-5.8				
and	1/8	5	0.061	2.3-2.7	2.5-3.0	2.7-3.2	2.8-3.4	3.0-3.5	3.2-3.8	3.5-4.2	3.7-4.4	4.1-4.9	4.7-5.6	5.8-6.9	7	4	2	1
201CT		6	0.067	2.7-3.6	3.0-3.8	3.2-4.1	3.4-4.3	3.5-4.6	3.8-5.0	4.2-5.4	4.4-5.8	4.9-6.4	5.6-7.3	6.9-8.9				
202C		7	0.073	3.6-4.6	3.8-4.9	4.1-5.3	4.3-5.6	4.6-5.9	5.0-6.4	5.4-6.9	5.8-7.4	6.4-8.2	7.3-9.4	8.9-11				
and	1/4	8	0.086	4.6-5.4	4.9-5.8	5.3-6.2	5.6-6.6	5.9-6.9	6.4-7.6	6.9-8.2	7.4-8.7	8.2-9.7	9.4-11	11-13	11	6	2.5	1.3
202CT		9	0.094	5.4-7.3	5.8-7.9	6.2-8.4	6.6-8.9	6.9-9.3	7.6-10	8.2-11	8.7-12	9.7-13	11-15	13-18				
203C		10	0.104	7.3-8.6	7.9-9.2	8.4-9.9	8.9-10	9.3-11	10-12	11-13	12-14	13-15	15-18	18-21				
and	3/8	11	0.12	8.6-11	9.2-12	9.9-13	10-13	11-14	12-15	13-17	14-18	15-20	18-23	21-28	21	7	3	1.3
203CT		12	0.136	11-15	12-16	13-17	13-18	14-19	15-20	17-22	18-24	20-26	23-30	28-36				
204C		13	0.15	15-19	16-20	17-21	18-23	19-24	20-26	22-28	24-30	26-33	30-40	36-49				
and	1/2	14	0.172	19-22	20-24	21-26	23-27	24-28	26-31	28-34	30-36	33-40	40-47	49-58	30	8	3.5	1.3
204CT		15	0.187	22-30	24-32	26-34	27-36	28-38	31-41	34-45	36-48	40-53	47-62	58-75				
206C		16	0.213	30-37	32-40	34-42	36-45	38-47	41-52	45-56	48-60	53-66	62-76	75-93				
and	3/4	17	0.242	37-43	40-47	42-49	45-53	47-56	52-61	56-66	60-70	66-78	76-91	93-99	55	33	18	12
206CT		18	0.261	43-57	47-61	49-65	53-69	56-73	61-80	66-86	70-92	78-99	91-99					
208C		19	0.302	57-71	61-77	65-82	69-87	73-91	80-99	86-99	92-99							
and	1	20	0.348	71-80	77-86	82-92	87-98	91-99							60	33	18	12
208CT		21	0.375	80-99	86-99	92-99	98-99											
Outlet Pressure				300	350	400	450	500	600	700	800	1000	1300	1950				

160F /77C maximum fluid temperature

*For pressures above 700 PSI specify Model with suffix (S) Stainless Steel Metering Knob

On Models 200.3C through 204C higher induction rates (especially of viscous materials) can also be obtained by replacing the standard metering knob with a high capacity metering knob DEMA Kit No. 24.56, 24.56T or 24.56S.

Viscosity	CPS
1	Water
75	10 wt. Oil
200	30 wt. Oil or dish detergent
500	Honey

METERING TIP	FLOW RATE (GPM) @ 100 PSI	0.25	0.40	0.60	0.8	1.3	1.6	1.75	2.3	3.2	3.7	4.1
	METERING BARB COLOR	White	Yellow	Tan	Red	Orange	Gray	Blue	Lt. Green	Purple	Dark Green	Brown
	OUTLET PRESSURE	25 PSI	30 PSI	35 PSI	45 PSI	45 PSI	45 PSI	45 PSI	45 PSI	45 PSI	45 PSI	45 PSI
	NOZZLE SIZE	0.029″	0.040″	0.051″	0.057″	0.070″	0.083″	0.086″	0.098″	0.116″	0.125″	0.136″
	Copper	1:86	1:100	1:178	1:202	1:384	1:399	1:467	1:714	1:796	1:945	1:996
	Pumpkin	1:80	1:82	1:145	1:169	1:305	1:346	1:387	1:546	1:499	1:787	1:635
	Burgundy	1:78	1:65	1:109	1:136	1:228	1:294	1:308	1:416	1:451	1:630	1:545
	Lime	1:76	1:49	1:75	1:103	1:151	1:242	1:229	1:268	1:328	1:473	1:426
	Tan	1:65	1:48	1:71	1:91	1:143	1:205	1:197	1:238	1:282	1:426	1:364
	Orange	1:50	1:35	1:50	1:61	1:79	1:170	1:136	1:190	1:267	1:270	1:341
	Turquoise	1:40	1:27	1:39	1:60	1:78	1:169	1:135	1:143	1:217	1:269	1:274
	Pink	1:30	1:18	1:27	1:36	1:55	1:75	1:77	1:95	1:135	1:171	1:179
	Lt. Blue	1:29	1:15	1:24	1:31	1:45	1:65	1:67	1:86	1:109	1:148	1:128
	Brown	1:27	1:13	1:20	1:27	1:35	1:55	1:58	1:76	1:101	1:125	1:116
	Red	1:22	1:11	1:17	1:21	1:30	1:45	1:48	1:60	1:82	1:102	1:101
	White	1:17	1:9	1:14	1:19	1:24	1:34	1:39	1:44	1:67	1:79	1:92
	Green	1:16	1:8.5	1:12	1:16	1:20	1:29	1:33	1:40	1:61	1:65	1:78
	Blue	1:14	1:8.5	1:9.5	1:13	1:15	1:24	1:26	1:35	1:46	1:51	1:63
	Yellow	1:13	1:8.5	1:9.4	1:9.4	1:11	1:18	1:20	1:26	1:29	1:39	1:49
	Black	1:13	1:8.4	1:9.4	1:8	1:8.9	1:12	1:13	1:16	1:23	1:27	1:30
	Purple	1:12	1:8.4	1:9.3	1:7.3	1:7.3	1:9.5	1:10	1:12	1:11	1:19	1:19
	Gray	1:10	1:8.4	1:9.3	1:7.1	1:6.8	1:7	1:7.5	1:7.7	1:9.4	1:11	1:16
	No Tip	1:9.6	1:8	1:9	1:7	1:6.2	1:6.1	1:6.7	1:5.7	1:7.8	1:8	1:11.1

METERING TIP	FLOW RATE (GPM) @ 200 PSI	0.30	0.55	0.85	1.1	1.7	2.4	2.6	3.4	4.3	5.3	6.1
	METERING BARB COLOR	White	Yellow	Tan	Red	Orange	Gray	Blue	Lt. Green	Purple	Dark Green	Brown
	OUTLET PRESSURE	50 PSI	60 PSI	70 PSI	90 PSI	90 PSI	90 PSI	90 PSI	90 PSI	90 PSI	90 PSI	90 PSI
	NOZZLE SIZE	0.029″	0.040″	0.051″	0.057″	0.070″	0.083″	0.086″	0.098″	0.116″	0.125″	0.136″
	Copper	1:96	1:141	1:130	1:277	1:426	1:582	1:715	1:812	1:1108	1:1441	1:1420
	Pumpkin	1:77	1:116	1:118	1:179	1:283	1:389	1:440	1:603	1:709	1:878	1:948
	Burgundy	1:57	1:91	1:107	1:157	1:260	1:366	1:395	1:519	1:608	1:777	1:845
	Lime	1:38	1:66	1:96	1:114	1:197	1:274	1:299	1:408	1:459	1:601	1:633
	Tan	1:35	1:64	1:85	1:101	1:178	1:207	1:269	1:366	1:418	1:545	1:543
	Orange	1:26	1:47	1:64	1:87	1:136	1:170	1:201	1:259	1:389	1:405	1:475
	Turquoise	1:20	1:35	1:46	1:85	1:135	1:169	1:200	1:257	1:277	1:404	1:401
	Pink	1:13	1:23	1:31	1:50	1:74	1:103	1:114	1:152	1:185	1:229	1:254
	Lt. Blue	1:13	1:20	1:29	1:38	1:58	1:71	1:90	1:119	1:146	1:182	1:191
	Brown	1:12	1:17	1:26	1:34	1:56	1:66	1:86	1:113	1:133	1:172	1:185
	Red	1:11	1:15	1:22	1:28	1:42	1:60	1:64	1:87	1:110	1:132	1:143
	White	1:10	1:12	1:18	1:24	1:37	1:56	1:58	1:76	1:95	1:114	1:129
	Green	1:10	1:10	1:16	1:22	1:33	1:46	1:48	1:68	1:82	1:103	1:116
	Blue	1:9.9	1:8.4	1:13	1:17	1:25	1:35	1:31	1:53	1:64	1:75	1:86
	Yellow	1:9.5	1:7	1:10	1:11	1:17	1:23	1:24	1:33	1:43	1:51	1:60
	Black	1:9	1:5.6	1:7.8	1:8.7	1:13	1:19	1:19	1:25	1:31	1:40	1:42
	Purple	1:8.6	1:5.2	1:6.9	1:6.4	1:6.5	1:9	1:10	1:13	1:16	1:19	1:22
	Gray	1:8.2	1:4.8	1:5.9	1:6.3	1:5.9	1:7.8	1:8	1:10	1:12	1:15	1:16
	No Tip	1:8.1	1:4.7	1:5.5	1:6.1	1:5.1	1:6.4	1:6.5	1:7.4	1:7.6	1:9.5	1:11.1

Dilution Ratios are based on specific inlet pressure and outlet pressure. Dilution Ratios are based on drawing water or water-thin product through the metering tip. Different viscostities and temperatures will affect the draw rates and lower the amount of fluid inducted increasing the overall dilution ratio making the injectors more lean.

ROCKET XL DILUTION CHART (100 PSI) 1/4 BARB

METERING TIP COLOR	NOZZLE SIZE .161" (6.4 GPM)	.177" (7.6 GPM)	.185" (8.5 GPM)	.206" (10.6 GPM)
Copper	1:1502	1:1818	1:1994	1:2204
Pumpkin	1:1001	1:1215	1:1327	1:1780
Burgundy	1:859	1:1009	1:1144	1:1633
Lime	1:669	1:835	1:884	1:1309
Tan	1:588	1:697	1:795	1:983
Orange	1:536	1:667	1:707	1:913
Turquoise	1:432	1:522	1:570	1:653
Pink	1:275	1:345	1:362	1:490
Lt. Blue	1:199	1:247	1:262	1:341
Brown	1:183	1:222	1:241	1:301
Red	1:152	1:188	1:200	1:231
White	1:144	1:177	1:189	1:217
Green	1:123	1:151	1:153	1:201
Blue	1:81	1:105	1:107	1:149
Yellow	1:54	1:70	1:72	1:97
Black	1:45	1:56	1:59	1:76
Purple	1:23	1:28	1:29	1:37
Gray	1:17	1:21	1:22	1:27
No Tip	1:9.3	1:10.7	1:10.5	1:12.8

ROCKET XL DILUTION CHART (100 PSI) 3/8 BARB

METERING TIP COLOR	NOZZLE SIZE .161" (6.4 GPM)	.177" (7.6 GPM)	.185" (8.5 GPM)	.206" (10.6 GPM)
Clear	1:424	1:522	1:560	1:694
Purple	1:260	1:320	1:344	1:425
Yellow	1:187	1:230	1:247	1:306
Green	1:120	1:148	1:159	1:196
Pink	1:98	1:120	1:129	1:160
Turquoise	1:55	1:68	1:73	1:91
Black	1:43	1:53	1:57	1:71
Gray	1:34	1:42	1:45	1:55
Red	1:28	1:34	1:37	1:46
Blue	1:22	1:27	1:28	1:35
Brown	1:16	1:20	1:21	1:26
White	1:14	1:17	1:18	1:22
Orange	1:10	1:13	1:14	1:17
Lt. Blue	1:9	1:11	1:11	1:14
Tan	1:7	1:8.5	1:9	1:11
No Tip	1:6.5	1:8.2	1:7.4	1:9.5

ROCKET XL DILUTION CHART (200 PSI) 1/4 BARB

METERING TIP COLOR	NOZZLE SIZE .161" (8 GPM)	.177" (10 GPM)	.185" (12 GPM)	.206" (15 GPM)
Copper	1:2082	1:2470	1:2867	1:2977
Pumpkin	1:1395	1:1649	1:1865	1:2407
Burgundy	1:1151	1:1318	1:1483	1:2308
Lime	1:958	1:1098	1:1225	1:1832
Tan	1:797	1:965	1:1072	1:1325
Orange	1:762	1:900	1:997	1:1207
Turquoise	1:599	1:706	1:779	1:739
Pink	1:396	1:459	1:499	1:673
Lt. Blue	1:282	1:329	1:357	1:458
Brown	1:254	1:296	1:327	1:406
Red	1:215	1:253	1:275	1:314
White	1:202	1:238	1:262	1:296
Green	1:169	1:202	1:220	1:272
Blue	1:112	1:132	1:143	1:202
Yellow	1:74	1:94	1:96	1:127
Black	1:63	1:73.5	1:80	1:103
Purple	1:31	1:38	1:39	1:49
Gray	1:23	1:28	1:30	1:36
No Tip	1:10.8	1:12.8	1:14.6	1:16.8

ROCKET XL DILUTION CHART (200 PSI) 3/8 BARB

METERING TIP COLOR	NOZZLE SIZE .161" (8 GPM)	.177" (10 GPM)	.185" (12 GPM)	.206" (15 GPM)
Clear	1:586	1:11	1:764	1:946
Purple	1:379	1:14	1:495	1:612
Yellow	1:253	1:18	1:330	1:408
Green	1:163	1:23	1:213	1:264
Pink	1:120	1:28	1:156	1:193
Turquoise	1:74	1:39	1:97	1:120
Black	1:60	1:45	1:78	1:96
Gray	1:47	1:57	1:61	1:76
Red	1:38	1:72	1:49	1:61
Blue	1:32	1:90	1:42	1:52
Brown	1:23	1:144	1:30	1:37
White	1:19	1:197	1:24	1:30
Orange	1:15	1:305	1:19	1:24
Lt. Blue	1:11	1:458	1:15	1:18
Tan	1:9	1:707	1:11	1:14
No Tip	1:8.1	1:9.7	1:9.8	1:12.7

Rocket Flow Rate Chart

	INCOMING PRESSURE (IN PSI)						
	MODEL #	20	60	100	150	200	250
ROCKET LOW FLOW	211.029	0.12	0.17	0.20	0.25	0.30	0.35
	211.040	0.28	0.35	0.4	0.48	0.55	0.6
	211.051	0.4	0.50	0.6	0.75	0.85	0.95
ROCKET	211.057	0.6	0.70	0.8	0.95	1.1	1.25
	211.070	0.7	1.08	1.3	1.5	1.7	1.9
	211.083	0.95	1.3	1.6	1.9	2.4	2.65
	211.086	1	1.5	1.75	2.2	2.6	2.8
	211.098	1.4	1.9	2.3	2.9	3.4	3.6
	211.116	1.7	2.6	3.2	3.8	4.3	4.8
	211.125	2.1	3	3.7	4.4	5.3	5.6
	211.136	2.2	3.60	4	5	6.1	6.3
ROCKET XL	211.161	3.9	5.10	6.4	7.6	8.8	9.4
	211.177	4.7	6.20	7.6	9.1	10.6	11.3
	211.186	5.2	6.70	8.5	10	11.4	12.2
	211.207	6.7	8.70	10.6	12.6	14.5	15.5

All flow rates listed in gallons per minute

Metering Tip Information

100-15K 1/4"
METERING TIPS (#8-32 UNC-2A thread)

COLOR	PART NO.	HOLE SIZE
Tan	100.15.0	0.0098"
Orange	100.15.1	0.0106"
Turquoise	100.15.2	0.0112"
Royal Blue*	100.15.19	0.0126"
Charcoal Gray*	100.15.20	0.0134"
Pink	100.15.3	0.0152"
Dark Blue*	100.15.23	0.0165"
Light Blue	100.15.4	0.0172"
Brown	100.15.5	0.0182"
Red	100.15.6	0.0205"
White	100.15.7	0.0215"
Green	100.15.8	0.0230"
Blue	100.15.9	0.0262"
Light Purple*	100.15.21	0.0285"
Yellow	100.15.10	0.0322"
Black	100.15.11	0.0365"
Mahagany*	100.15.24	0.0425"
Light Orange*	100.15.BU1	0.0480"
Purple	100.15.12	0.0522"
Gray	100.15.13	0.0600"

* Not included with standard tip Kits

61-9K
3/8" METERING TIPS (#12-24UNC-2A thread)

COLOR	PART NO.	HOLE SIZE
Clear	61.9.L1	0.009"
Purple	61.9.L3	0.0125"
Yellow	61.9.L6	0.0175"
Green	61.9.L8	0.0225"
Pink	61.9.L9	0.0255"
Turquoise	61.9.L10	0.0345"
Black	61.9.L11	0.0375"
Gray	61.9.L13	0.043"
Red	61.9.L14	0.049"
Dark Blue	61.9.L15	0.055"
Brown	61.9.L16	0.0605"
White	61.9.L17	0.0685"
Orange	61.9.L18	0.077"
Light Blue*	61.9.L19	0.089"
Tan*	61.9.L21	0.112"

* Not included with standard tip Kits

100-15KU (ULTRA LEAN)
3/8" METERING TIPS (#8-32 UNC-2A thread)

COLOR	PART NO.	HOLE SIZE
Copper	100.15.14	0.006"
Amber	100.15.15	0.007"
Burgandy	100.15.16	0.008"
Lime Green	100.15.17	0.009"

MixRite Repair Kit Information

MODEL #	INJECTION PERCENTAGE/ RATIO	LIP SEAL KIT	CHEMICAL PISTON AND CONNECTING BAR KIT	CHEMICAL CHECK VALVE KIT	SUCTION CYLINDER	PLASTIC SPRING KIT	ENGINE REPAIR KIT
1400A 1400M	.03%-.2% or 3333:1 - 500:1	36000000212	N/A	36000000260	N/A	36000000191	36300000019
569	.1-.9% or 1000:1 -100:1	36000000210	36000000148	36000000258	36000000199	36000000191	36000000221
1401A 1401M	.1-.9% or 1000:1 -100:1	36000000210	36300000016	36000000258	36300000017	36000000191	36300000019
570/571	.3-2% or 500:1 - 50:1	36000000204	36008021103	36000000258	36000000172	36000000191	36000000221
1402A 1402M	.3-2% or 500:1 - 50:1	36000000204	36300000014	36000000258	36300000018	36000000191	36300000019
572/573	.4-4% or 250:1 - 25:1	36000000205	36008041103	36000000258	36000000173	36000000191	36000000221
1405A 1405M	.5-5% or 200:1 - 20:1	36300000020	36300000003	36000000263	36300000005	36000000191	36300000019
1410A 1410M	1-10% or 100:1 - 10:1	36300000213	36300000008	35200000059	36000000178	36000000191	36300000619

Other parts are available, part diagrams are available online.

At DEMA, Custom Solutions come in an array of packages. We have a full engineering staff to meet all the needs of our customers. We think there are several advantages to partnering with us to find a solution that meets our customers' needs.

We are Collaborators.

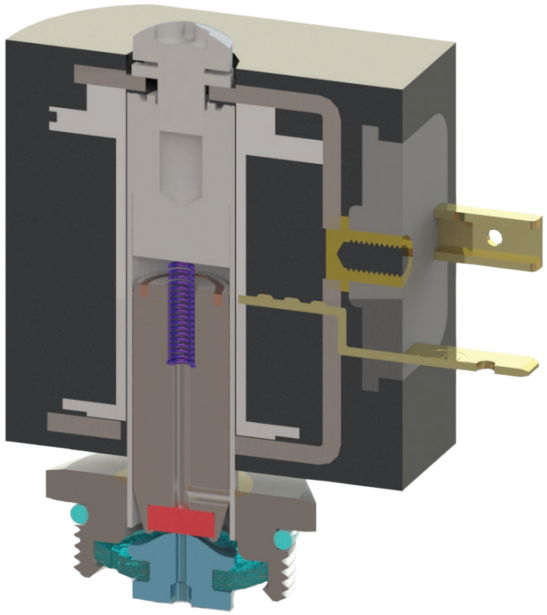
We partner with our customers in a variety of ways to effectively promote their brand they have been building. We take the utmost care to provide quality custom solutions to our partners to help them speed up manufacturing, time to market, and produce quality products their customers need to have. Our marketing staff effectively helps our customers capitalize on the opportunity to enhance their brand and differentiate themselves from their competition.

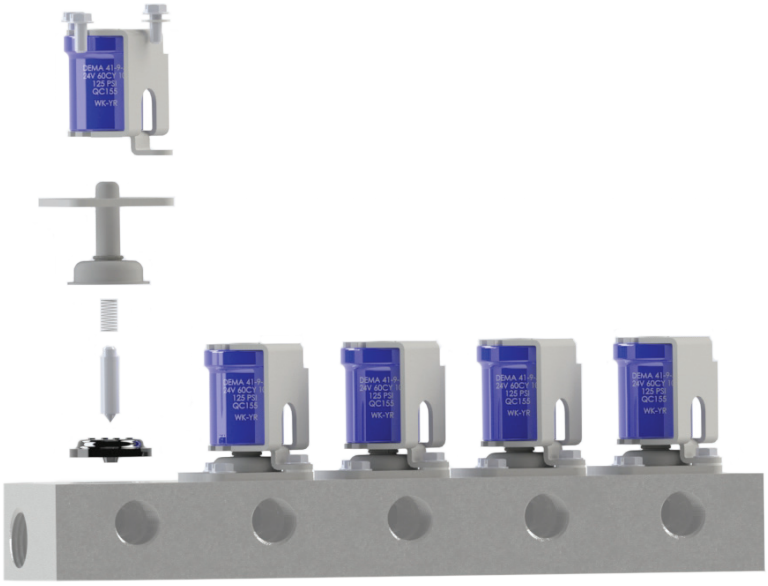
We are Manufacturers.

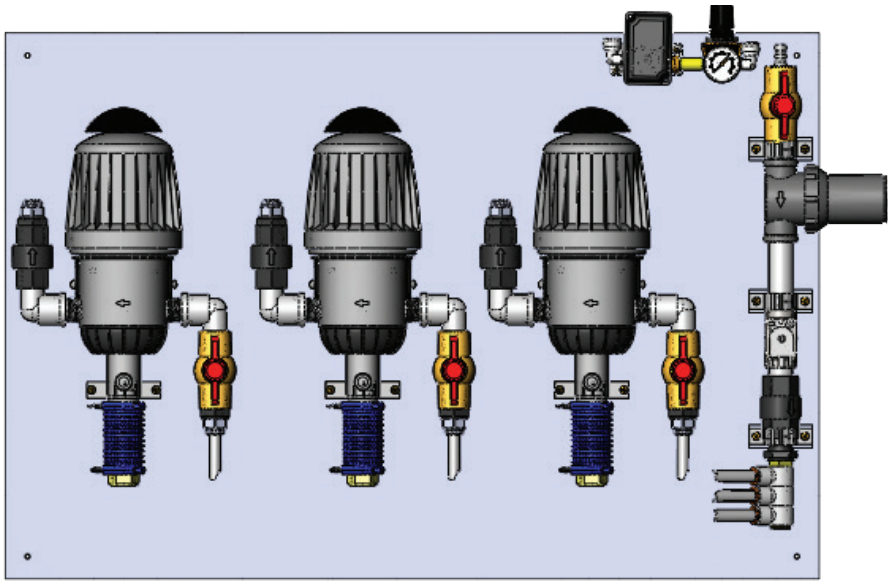
All of our manufacturing is done here in Saint Louis, Missouri. We have a full machine shop to support our design work as we go through iterations of designs to test for life cycle, form, fit, and function. We can easily customize a unit with our manufacturing group from changing a pack out to changing a diaphragm. Customization at this level means that we have the most flexible operations for our customers to be able to get the exact product they need at exactly the moment they need it.

We are Designers.

We utilize the deep industry knowledge of our sales staff, engineering team, and customers to come up with innovative designs. We continually look for ways to improve upon our products and we are set up to quickly turn around any design we have in house. We can easily start from scratch on a new design for our customer's specific needs in any application or tailor an existing design to meet different applications' needs.







Definitions

MOPD	Maximum Operating Pressure Differential Maximum differential against which solenoid valve can open
MRP	Maximum Rated Pressure Maximum pressure which can be applied to the valve
GPM	Gallons per minute flow
PSIG	Pounds per square inch gauge
CV (Flow Factor)	Quantity of 60F/16ºC water in GPM that will pass through a valve with a PSIG drop of one.

To find the GPM of a valve multiply the rated CV (flow factor) by the square root of the pressure drop across the valve.

GPM = (CV flow factor) X $\sqrt{\text{pressure drop across valve}}$

CV Flow Factor = (GPM) ÷ $\sqrt{\text{pressure drop}}$

Pressure Drop = $\left(\frac{\text{GPM}}{\text{CV}}\right)^2$

Gravity PSI = .432 x height (in feet)

Centipoise (CPS), Viscosity of fluid

1	Water
75	10 weight oil
200	30 weight oil
500	Honey

SEAL MATERIAL	TEMP. RANGE	GENERALLY RESISTANT TO:
Buna N	-40°F to 250°F -40°C to 120°C	oil, grease, hydraulic fluids, water, alcohol
EPDM	-60°F to 300°F -50°C to 150°C	animal and vegetable oils, ozone, oxidixing, chemicals (Do not use with petroleum based fluids)
Viton	-20°F to 400°F -29°C to 205°C	resistant to swelling (citrus based products)
Teflon	-75°F to 450°F -60°C to 230°C	extreme temperatures

METRIC CONVERSIONS:

TO GO FROM	MULTIPLY BY	TO GET	TO GO FROM	MULTIPLY BY	TO GET
Gallons	3.785	Liters	Liters	.2642	Gallons
Ounces	29.57	Milliliters	Milliliter	.034	Ounces
PSI	0.068	Bar	Bar	14.5	PSI
Inches	25.4	Millimeters	Millimeters	0.0394	Inches
Fahrenheit	5/9(F-32)	Celsius	Celsius	9/5C+32	Fahrenheit

DECADES OF FLUID CONTROL AND DISPENSING INNOVATION

Founded in 1956, DEMA's roots are deeply entrenched in fluid control products. It all started with a customer's request to easily and accurately mix chemicals with water over 60 years ago. We've grown a bit since then, our line of products now touch uniquely different markets such as car wash, food and beverage processing, housekeeping, commercial laundry, and many others. You can find DEMA products across the globe and on all seven continents. We're experts in mixing and moving fluids from point A to point B, precisely, each and every time.

HISTORY

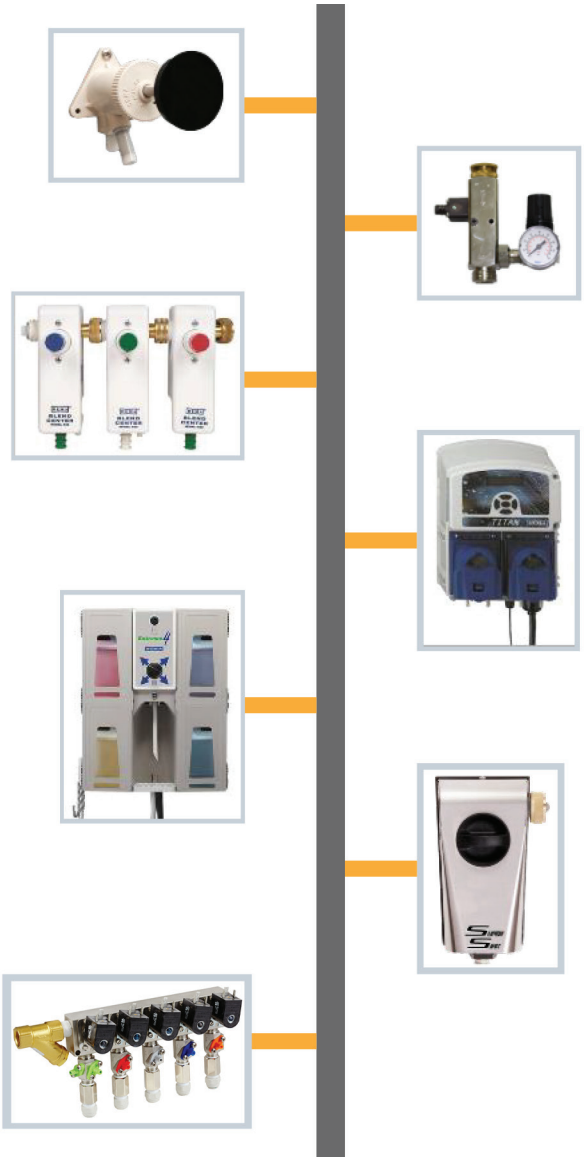
Shortly after forming their first company Standard Machine and Manufacturing, Bela and Hermann Deutsch founded DEMA in 1956. During DEMA's first year, the "proportioner" was introduced to the institutional cleaning market. Soon after, large chemical companies approached DEMA to build various products that would allow them to dilute their cleaning chemicals correctly.

Since the beginning, DEMA's primary goal is to offer our customers the most reliable, safest, and accurate way of dispensing concentrated chemicals. In addition to our complete range of chemical dispensing equipment, DEMA has also designed and manufactured a line of solenoid valves, injectors, and other fluid control devices to meet many industrial applications.

During DEMA's early years, our focus was on water driven dispensing equipment. As technology advanced, DEMA entered the electronic dispensing market, and now produces a broad range of electronic dispensers for kitchen, food service, laundry, industrial, and specialty applications. These dispensers are designed to meet our worldwide customer base's needs, specifically holding quality and safety at the highest standard and helping to lower the total cost of equipment ownership.

DEMA is committed to the complete satisfaction of our customers throughout the world. DEMA has expanded our facilities in Missouri, Pennsylvania, North Carolina, the Netherlands, and Australia. These expansions have led to better service and satisfaction for our growing global customers.

DEMA is continuously updating our product range to meet the needs of our global customers. From 2 people in 1956 to more than 420 employees today, DEMA continues to grow and maintain its status as a leading provider of chemical dispensing and fluid control equipment.



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