Blue-White® Industries, Ltd.

CHEM-FEED® Diaphragm Metering Pumps
Engineering and Technical Data

C-1500N
Fixed Speed

2 OUTPUT CONTROL OPTIONS:

Standard Models feature a quick adjusting, high accuracy mechanical *stroke length control*. The pump's efficient design allows for a minimum stroke length of 5%. Minimum recommended output is 5% of maximum.

Deluxe Models feature *stroke length* and electronic *time Interval control.* The pump's on time is adjustable from 5-100% of the repeating 5 second time interval. (0.25 - 5.0 sec.) The high frequency of the repeating 5 second time interval, and the extremely accurate mechanical stroke adjustment, result in a higher frequency of small injections per minute. Minimum recommended output is .5% of maximum.

Standard   **Deluxe**

Features:

- All ball bearing, permanently lubricated gear motor for smooth, quiet, powerful operation.
- Double-ball inlet and outlet cartridge type ceramic check valves. Chemical resistant PVDF valve body and fitting, ceramic balls, Viton static seals and TFE/P ball seat o-rings. No metal springs are used.
- Stroke adjustment from 5-100% permits accurate small injections at a high rate per minute.
- Outputs to 36 LPH (228.1 GPD).
- Output pressures to 125 PSI.

- PTFE coated EP diaphragm.
- Includes visual flow indicator on the suction line tubing.
- Outdoor rated enclosure.
- Durable housing of chemical resistant Valox (PBT) thermoplastic.
- PVDF suction (foot) valve with Viton and TFE/P o-rings, ceramic check ball and removable polypropylene filter screen.
- Includes 3/8" OD suction and discharge tubing, Injection fitting with spring-loaded check valve and all mounting hardware.

Specifications:

Max. working pressure: ....125 psig (8.6 bar)
Max. fluid temperature: ....130° F (54° C)
Max. ambient temperature: ..14° to 110° F/ -10° to 43° C
Maximum viscosity: ....1,000 Centipoise
Maximum suction lift: ....10 ft. Water 0 psig
Output adjustment range:
   Standard model:................5-100% stroke length
   Deluxe model: ...5-100% stroke length &
                5-100% of the repeating 5 second interval timer.
                (12 Injections per minute)

Duty cycle:...........................Continuous
Enclosure: ....NEMA type 3R, (IP23)
Voltage (amp draw): ....115VAC/60Hz, 1ph (.74 amp max)
                             230VAC/60Hz, 1ph (.36 amp max)
                             220VAC/50Hz, 1ph (.31 amp max)
                             24VAC/60Hz, 1ph (3.40 amp max)
Power Cord Plug Type:.........115V60Hz = NEMA 5/15 (USA)
                             230V60Hz = None (junction box)
                             220V50Hz = CEE 7/VII (EUROPE)
                             24V50Hz = None (junction box)
Approximate shipping wt: ...8 lb. (3.6 kg)

Materials of Construction:
Wetted components:

Pump Head:...........................PVDF (options: PTFE, Acrylic)
Pump Head Inlet/outlet Valves:
   Cartridge valve body: ....PVDF
   Tube adapters: ....PVDF
   Check Balls: ....Ceramic
   Ball Seat O-ring:.................TFE/P (optional EP)
   Static Seal O-ring: ....Viton® (optional EP)
Suction Tubing:.....................Clear PVC
Flow indicator: ....Clear PVC body, glass ball
                            (Carwash models use 316 SS ball)
Discharge Tubing:.................Natural Polyethylene (LLDPE)

Suction Footvalve/Strainer:
   Body & Tubing adapter:.....PVDF (optional PTFE)
   Strainer: ....Polypropylene
   Check Ball: ....Ceramic (optional PTFE poppet)
   Ball Seat O-ring:.................TFE/P (optional EP)
   Static Seal O-ring: ....Viton® (optional EP)
Injection/Check valve:
   Body & insert: ....Polypropylene (optional PVDF, PTFE)
   Check Ball: ....Ceramic (optional PTFE poppet)
   Spring: ....Hastelloy C-276
   Ball Seat O-ring:.................TFE/P (optional EP)
   Static Seal O-ring: ....Viton® (optional EP)

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Dimensions:

4.500" 5.750" 9.062"

#10 Self-Tap (2 X) #10-32 2.30"

Wall Mount Bracket
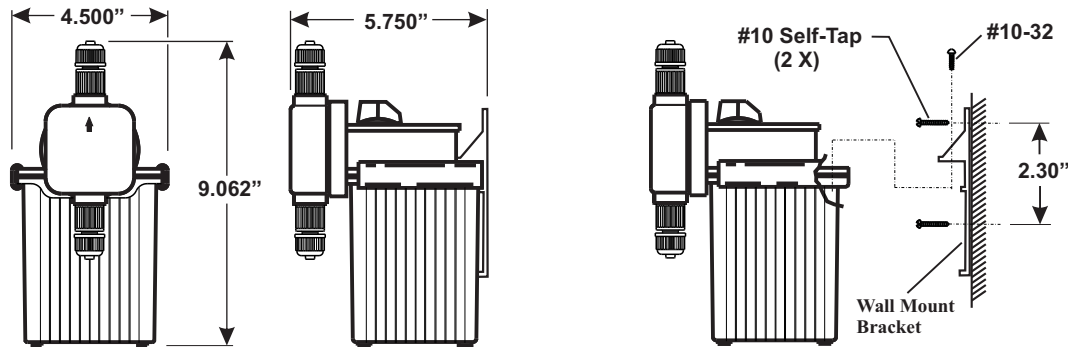
Model Number Matrix:

MODEL C15N ☐☐☐☐☐☐☐☐

Maximum Motor RPM
0 = 14 RPM	**3** = 60 RPM
1 = 30 RPM	**4** = 125 RPM
2 = 45 RPM	

Power Supply (motor protection)
0 = 115V60Hz (IP)	**4** = 115V60Hz (TP)
1 = 220V50Hz (IP)	**5** = 220V50Hz (TP)
2 = 230V60Hz (IP)	**6** = 230V60Hz (TP)
3 = 24V60Hz (IP)	**7** = 24V50Hz (none)*
	8 = 240V50Hz (TP)

IP = impedance protection, TP = Thermal protection
* intermittent duty only

Cam Stroke Length
1 = .125"	**3** = .187"
2 = .055"	**4** = .100"

Output Control & Electrical
X = Standard Equipment
I = Analog timer, 5 sec. Cycle - 100% duty
K = Analog timer, 60 sec. Cycle - 100% duty
A = Junction box replaces power cord
C = On/Off switch and junction box
P = Power cord and junction box
R = 230V Power cord w/NEMA 6/15 plug
T = 230V Power cord and on/off switch
Z = Proportional feed system - JBox/Cord

Footvalve
0 = C-340 (PVDF/Polypropylene)
1 = C-345 (PVDF/Polypropylene - bulkhead mount)
2 = C-340-6T (PTFE)

Injection Fitting
0 = A-014N (Polypropylene - ½ lb spring)
1 = C-395N (Polypropylene - 6 lb spring)
A = A-014-6T (PTFE - ½ lb spring)
B = C-395-6T (PTFE - 6 lb spring)
C = A-014NK (PVDF - ½ lb spring)
D = C-395NK (PVDF - 6 lb spring)

Elastomer Material
V = Viton	**E** = EP

Diaphragm Style
0 = Large PTFE/EP	**6** = Small PTFE / EP
1 = Large PTFE/Viton	**7** = Small PTFE / EP

Pump Head Style
0 = Large Diaphragm	**4** = Large Diaphragm Carwash
2 = Small Diaphragm	**6** = Small Diaphragm Carwash
	5 = Large Pressure release

Pump Head Material
0 = Injection molded PVDF
4 = Machined PTFE
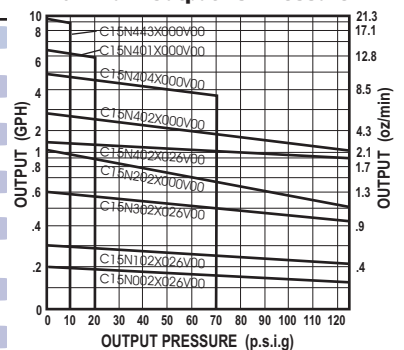**5** = Machined Acrylic

Flow rate and pressure capacities:

Standard models with Stroke Adjustment (20:1 turndown)

GPD	GPH	LPH	OZ/MIN	Strokes Per minute	Max PSI	115V/60Hz Model Number	230V/60Hz Model Number	220V/50Hz* Model Number
3.4	0.2	0.5	0.3	14	125	C15N002X026V00	C15N022X026V00	C15N012X026V00
8.3	0.3	1.3	0.7	30	125	C15N102X026V00	C15N122X026V00	C15N112X026V00
16.3	0.6	2.5	1.4	60	125	C15N302X026V00	C15N322X026V00	C15N312X026V00
26.6	1.1	4.2	2.4	45	125	C15N202X000V00	C15N222X000V00	C15N212X000V00
34.2	1.4	5.4	3.0	125	125	C15N402X026V00	C15N422X026V00	C15N412X026V00
68.4	2.8	10.8	5.9	125	125	C15N402X000V00	C15N422X000V00	C15N412X000V00
119.7	4.9	18.9	10.6	125	70	C15N404X000V00	C15N424X000V00	C15N414X000V00
155.9	6.4	24.6	13.8	125	20	C15N401X000V00	C15N421X000V00	C15N411X000V00
228.1	9.5	36.0	20.2	125	10	C15N443X000V00	C15N463X000V00	C15N453X000V00

Deluxe models with Stroke & Time Interval Adjustment (400:1 turndown)

GPD	GPH	LPH	OZ/MIN	Strokes Per minute	Max PSI	115V/60Hz Model Number	230V/60Hz Model Number	220V/50Hz* Model Number
34.2	1.4	5.4	3.0	125	125	C15N402I026V00	C15N422I026V00	C15N412I026V00
68.4	2.8	10.8	5.9	125	125	C15N402I000V00	C15N422I000V00	C15N412I000V00
155.9	6.4	24.6	13.8	125	20	C15N401I000V00	C15N421I000V00	C15N411I000V00

Max Output at 0 PSI (header spanning GPD GPH LPH OZ/MIN)

*** Note: 220V/50Hz models deliver approximately 20% less output.**

Maximum Output vs. Pressure

C15N443X000V00
C15N401X000V00
C15N404X000V00
C15N402X000V00
C15N402X026V00
C15N202X000V00
C15N302X026V00
C15N102X026V00
C15N002X026V00

OUTPUT (GPH) — OUTPUT (oz/min)
OUTPUT PRESSURE (p.s.i.g)