



High-Capacity Ejector Assembly

Installation, Operation & Maintenance

EJE-1000 -CL2

EJE-2000 -CL2

EJE-3000 -CL2

General: The Enchlor ejector assembly is designed to provide vacuum induction and to prevent motive water from entering the vacuum lines.



Installing the Ejector Assembly:

Important Notes:

- * The High-Capacity ejector offers 2" (FOR 2000 PPD & 3" FOR 3000 PPD) Sch80 PVC "Van Stone" style 4-bolt flanged process connections. Mating flanges, gaskets, bolts & nuts are provided.
 - * When selecting pipe and fitting materials to be used with the ejector, it is important to understand that the water discharge from the ejector will carry a highly chlorinated solution. Schedule 80 PVC is suitable for most installations and is generally recommended.
- 1) Prior to cutting pipe for installation, remember to factor in the thickness of two (2) flange gaskets.
 - 2) After careful measurements are made, install the 2" PVC mating flanges(FOR 2000 PPD& 3" FOR 3000 PPD) and allow an appropriate amount of time for the PVC cement to dry before installing the ejector.
 - 3) Using the gaskets and hardware provided, install the ejector with the nozzle side of the ejector (the shorter side) upstream and the diffuser side (the longer side) downstream.

Operating the Ejector Assembly:

- 1) After installation, the ejector should be tested for proper operation before connecting the piping. Make sure all valves are aligned properly and provide motive water to the ejector.
- 2) When motive water is supplied a vacuum should be felt at the vacuum union. If no vacuum is felt, investigate both the supply pressure and backpressure and consult the appropriate nozzle performance table (included in this manual).
- 3) Next, shut off the water flow and observe the vacuum union for any indication of water. The ejector assembly incorporates a spring loaded, normally closed diaphragm check valve and is designed to prevent any water from entering the vacuum piping.
- 4) Once it has been confirmed that the ejector is working properly, the ejector is ready for use. Connect the vacuum union (PVC socket-connection) to the rest of the gas feed system.

NOTE: The ejector check valve requires regular maintenance to prevent water from flooding the gas lines. It is generally recommended that the check valve be rebuilt once per year. However, this is only a rule of thumb. Some applications involve frequent start / stop cycles and high back pressures. In these applications the elastomers in the check valve will wear more rapidly than in applications where the ejector operates constantly.

Maintaining the Ejector Assembly:

Recommended Maintenance Frequency: Enchlor recommends yearly maintenance of the ejector.

-Refer to the parts diagram when performing maintenance on the ejector assembly.

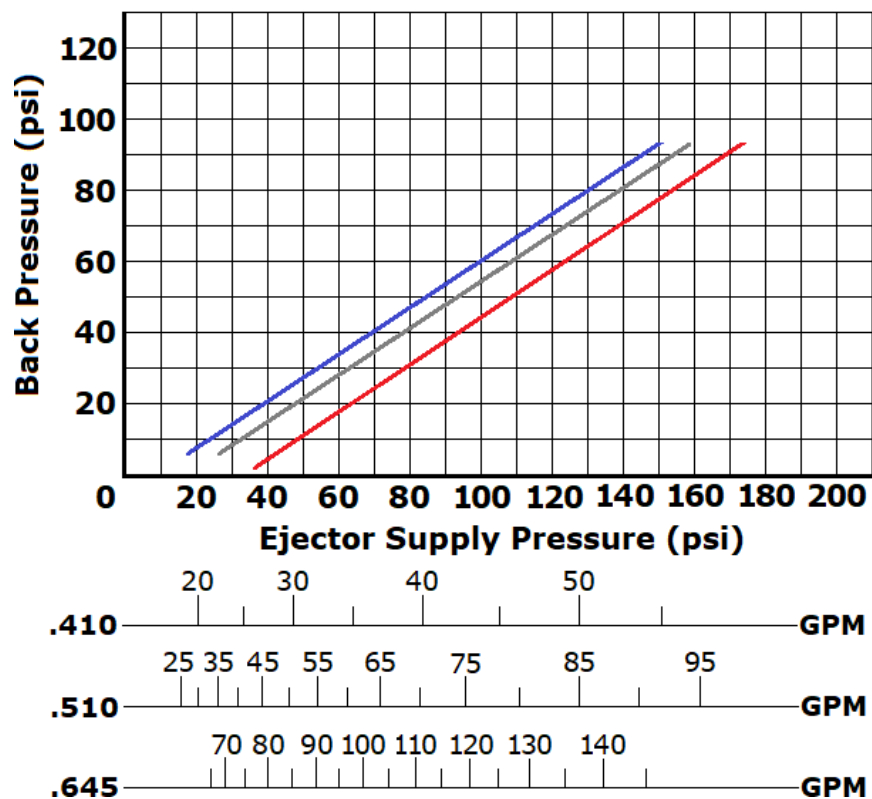
- 1) Prior to performing any maintenance on the ejector assembly it must be isolated from pressurized water sources by shutting off the booster pump (if applicable) and closing the water supply valve.

NOTE: The nozzle & diffuser do not generally require maintenance. Visually inspect the nozzle for any foreign objects, damage or deposits and clean if necessary.

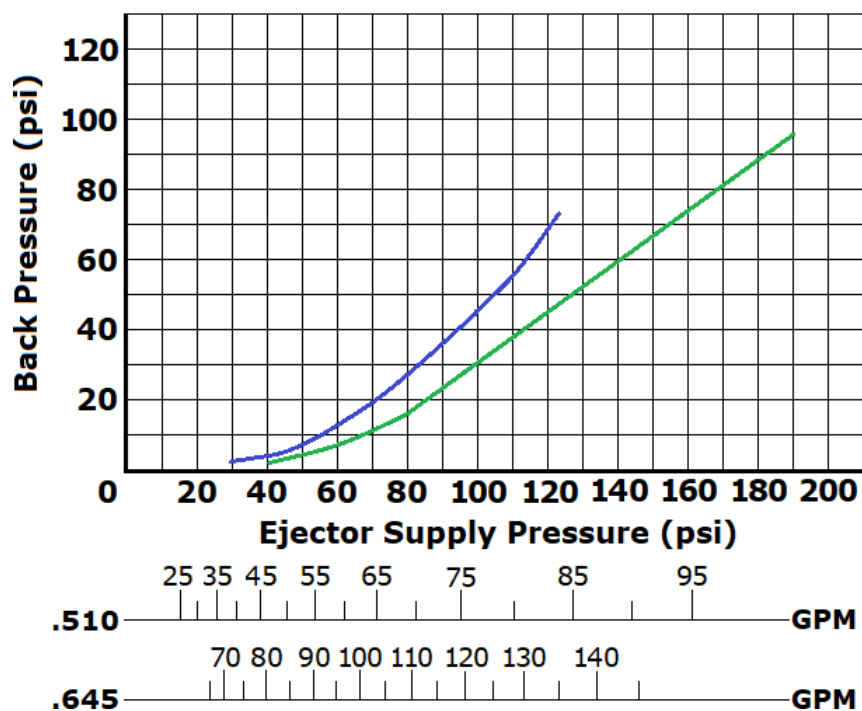
- 2) Remove the check valve assembly from the ejector center body by unscrewing the interconnecting pipe nipple.
- 3) The check valve can be serviced by disassembling the four bolts & nuts holding the top and bottom bodies together.
- 4) The ejector check valve is comprised of a spring, O-ring and diaphragm assembly
- 5) Be careful not to lose or damage the ejector spring.
- 6) The diaphragm between two threaded parts (diaphragm bolt and diaphragm nut). These can be unscrewed from one another, allowing the diaphragm and support diaphragm to be removed.
- 7) Remove the used O-rings from the top body, bottom body and diaphragm bolt. The critical check valve O-ring (OE-CEM-214) is found installed in a groove at the center inside the ejector top body.
- 8) To Service: Clean all parts carefully. Reassemble using new diaphragm and o-rings. Apply a thin film of Fluorolube grease to each o-ring.
- 9) When installing new O-rings, take extra care to be sure the new OE-CEM-210 O-rings is installed evenly in the groove.

-Should you have any questions during maintenance of your ejector assembly, please contact your local service provider or Enchlor CO for support.

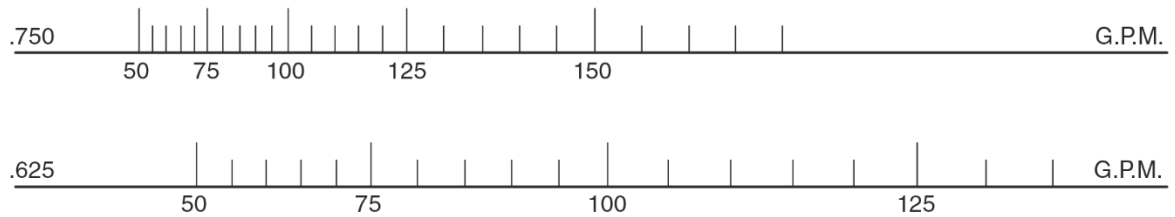
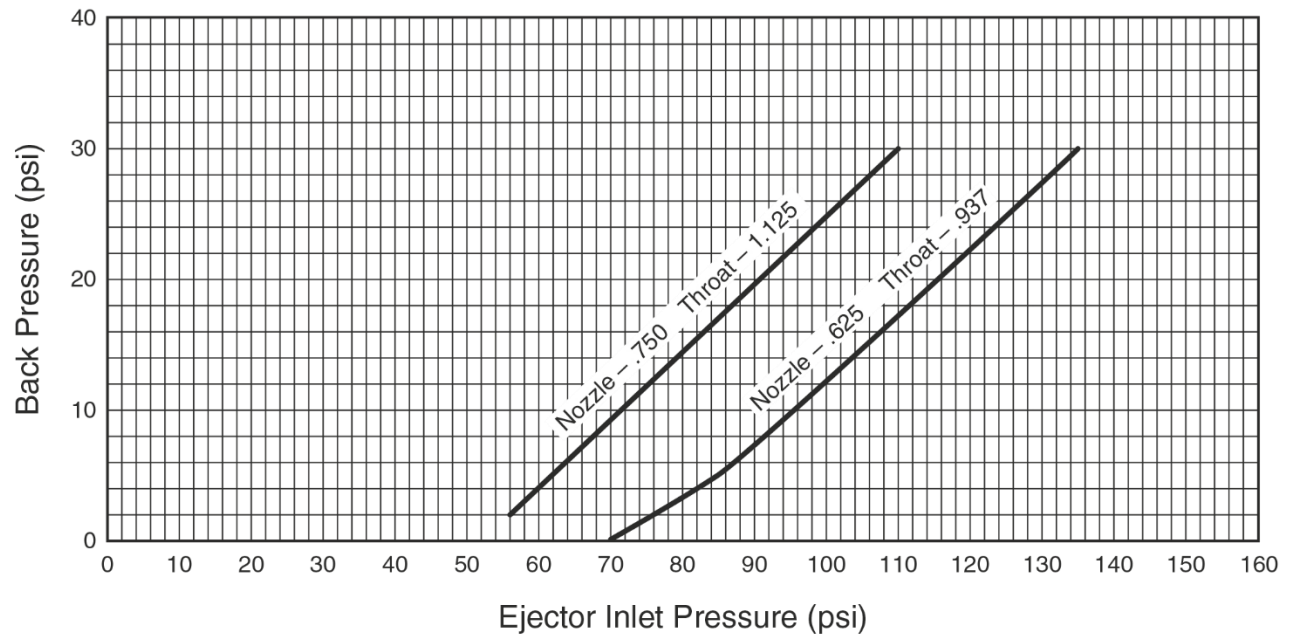
■ .410 Nozzle .605 Diffuser
■ .510 Nozzle .735 Diffuser
■ .645 Nozzle .950 Diffuser **1,000 PPD (20 kg/hr)**



■ .510 Nozzle .735 Diffuser
■ .645 Nozzle .950 Diffuser **2,000 PPD (40 kg/hr)**

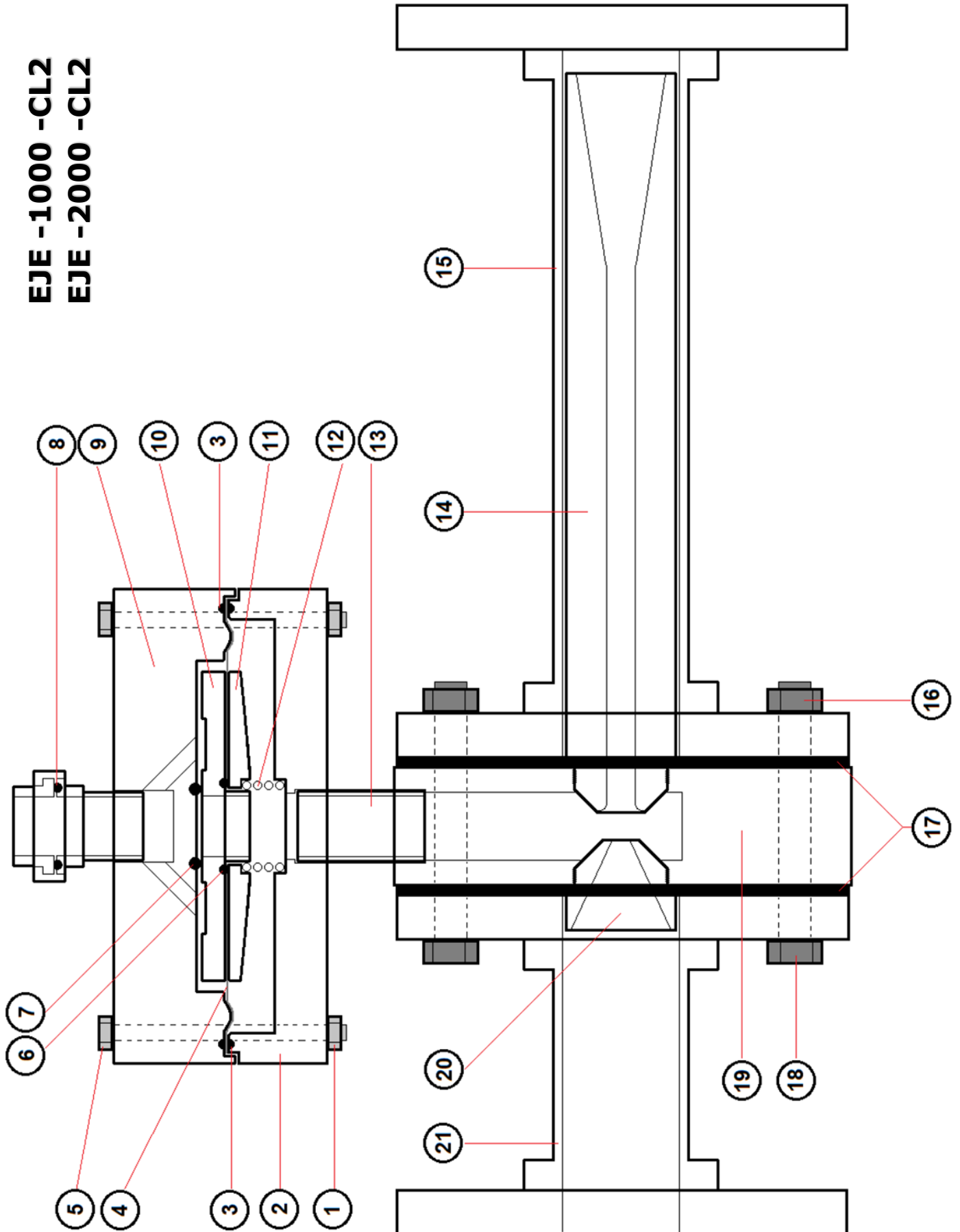


for 3000 PPD (60 kg/hr)

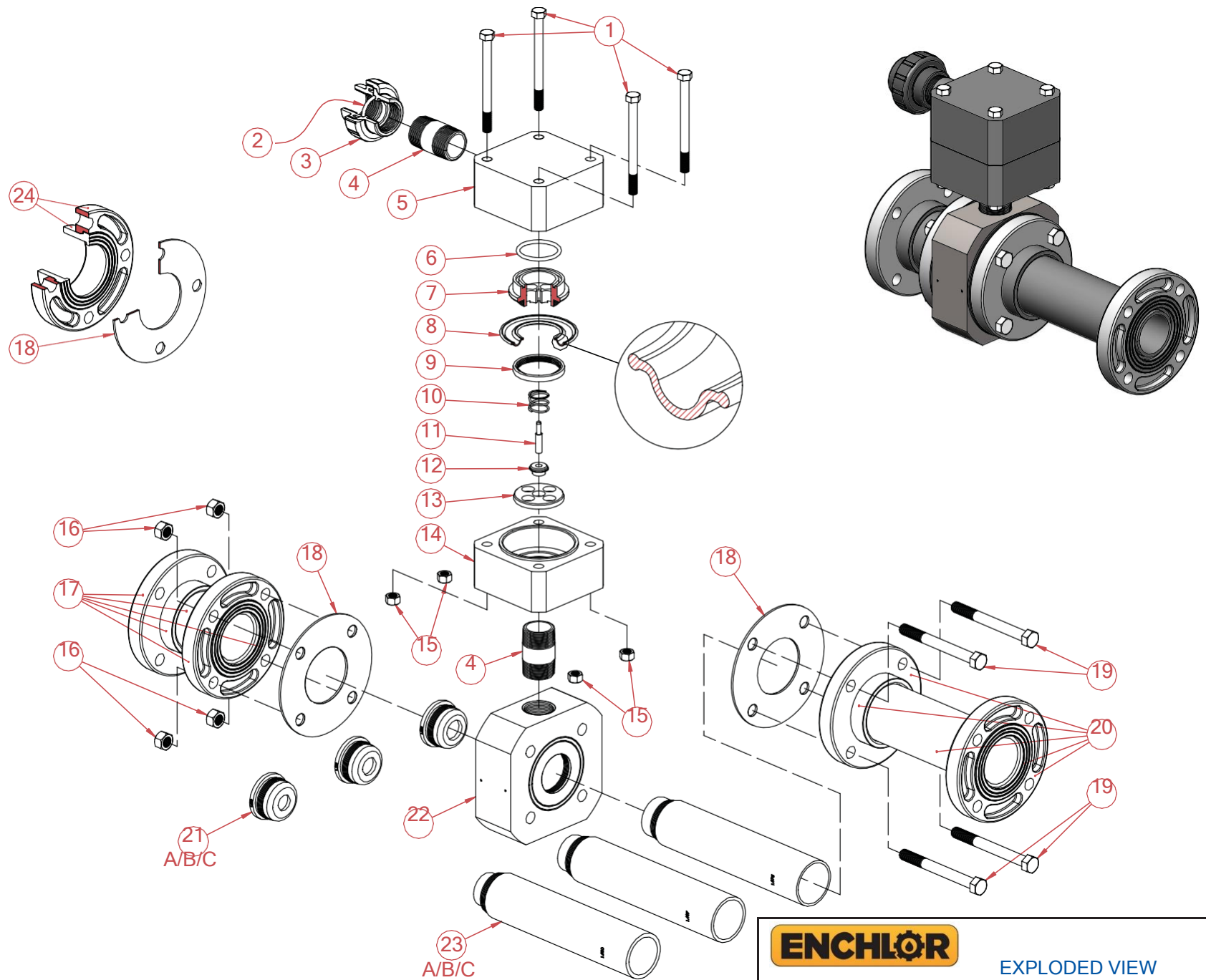


Note: Pressure combinations that plot below the line for any given nozzle are acceptable for operating that nozzle at the stated chemical feed rate for that chart. Pressure combinations that fall above the line for any given nozzle are not acceptable.

EJE -1000 -CL2
EJE -2000 -CL2



Item#	Qty	Part#	Description	Item#	Qty	Part#	Description
1	4	NTA-104	5/16-18 Hex Nut	12	1	SPA-110	Spring
2	1	EJA-712	Check Valve Bottom Body	13	1	CSN-100	1" x 2" Sch80 PVC Nipple
3	2	OA-VIT-156	O-Ring	14	1	EDA-XXX	Diffuser (three sizes offered) XXX = 605, 735 or 950
4	1	DIA-103	Diaphragm	15	1	EJA-890	Diffuser Housing (2" PVC Flanges)
5	4	BTA-57	5/16-18 x 4-1/2" Hex Head Bolt	16	4	NTA-230	5/8-11 Hex Nut
6	1	OA-VIT-126	O-Ring	17	2	GA-308	Flange Gasket
7	1	OA-CEM-214	O-Ring	18	4	BTA-156	5/8-11 x 4-1/2" Hex Head Bolt
8	1	OA-VIT-215	O-Ring	19	1	EJA-411	Center Body
9	1	EJA-711	Check Valve Top Body (w/ union)	20	1	ENA-XXX	Nozzle (three sizes offered) XXX = 410, 510 or 645
10	1	EJA-713	Diaphragm Bolt	21	1	EJA-891	Nozzle Housing (2" PVC Flanges)
11	1	EJA-714	Diaphragm Nut				
NOTES: 1) Water process connections are 2" Sch80 PVC "Van Stone" Style Flanges. *Mating flanges, gaskets, bolts & nuts are included 2) Vacuum process connection is 1" Sch80 PVC socket union (unless specified otherwise) 3) Nozzle / Diffuser combinations are as follows: 410 / 605 510 / 735 645 / 950						DRW :EJE -1000 -CL2 EJE -2000 -CL2	



ENCHLOR

EXPLODED VIEW
3" FLANGED EJECTOR Dwg. No. EJE-3000-CL2, EXP

Item No.	Description	Quantity	Part No.
1	½"-13 x 6" Long Bolt	4	BTE-STA-191
2	^{PM} O-Ring	1	OE-VIT-328
3	1.5" Union	1	U-4298
4	1½" x 3" Nipple	2	RE-481-000
5	Ejector Check Valve Top Body	1	EJE-175-000
6	^{PM} O-Ring	1	OE-CEM-331
7	^{PM} Diaphragm Bolt	1	EJE-173-000
8	^{PM} Diaphragm	1	DIE-117-000
9	^{PM} Diaphragm Nut	1	EJE-178-000
10	Spring	1	SPE-115-000
11	Guide Pin	1	EJE-191-000
12	Pin Guide	1	EJE-190-000
13	Spring Retainer	1	EJE-172-000
14	Ejector Check Valve Bottom Body	1	EJE-174-000
15	Nut, ½"-13 Hex	4	NTE-STA-192
16	Nut, ⅝"-11 Hex	4	NTE-STA-230
17	Nozzle Housing Assembly *	1	RE-892-000
18	^{PM} Flange Gasket (two installed, two loose)	4	RE-477-000
19	Bolt, ⅝"-11 x 6" Long	4	BTE-STA-241
20	Throat Housing Assembly *	1	RE-893-000
21 A	Nozzle (1.000" Orifice)	1	EJE-185-1000
21 B	Nozzle (1.125" Orifice)	1	EJE-185-1125
21 C	Nozzle (1.250" Orifice)	1	EJE-185-1250
22	Ejector Body (3" Ejector)	1	EJE-177-000
23 A	Throat (1.500" Orifice)	1	EJE-171-1500
23 B	Throat (1.687" Orifice)	1	EJE-171-1687
23 C	Throat (1.875" Orifice)	1	EJE-171-1875
24	Flange (3" Socket)* (four installed, two loose)	6	RE-1222
^{PM}	Part & Maintenance Kit	1	KTE-3000-EJS
*	Flanges are 3 inch, four bolt, 150 lb., S (Van Stone style) in Schedule 80 PVC.		



ENCHLOR BILL OF MATERIALS
3" FLANGED EJECTOR Dwg. No. EJE-3000-CL2, BOM



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The manufacturing took place in Egypt under the manufacturing contract between us and the Water Technology Company in Egypt, through which it is requested

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