



Regal Ejector Assemblies

The ejector is the engine. It is where vacuum is created to run your system.

Your system will not work without a properly sized ejector. We've got you covered with options to fit your needs.

What makes Regal Ejectors a great choice?

- Easy to service
- No bolts, nuts, washers etc. are used
- One-piece body
- One-piece nozzle
- Hand tight



A-930 Ejector

High/Low Pressure Check Valve

We've Got You Covered - Highly Recommended Ejectors



A-930 Ejector

High/Low Pressure Check Valve

Key Points:

- High or low back pressure applications
- Ball check valve with spring loaded diaphragm as secondary check valve
- Systems up to 250 ppd



A-940 Ejector

Dual High/High Pressure Check Valve

Key Points:

- High or low pressure applications
- Back pressure over 20 PSI
- Ball check valve with a spring loaded poppet



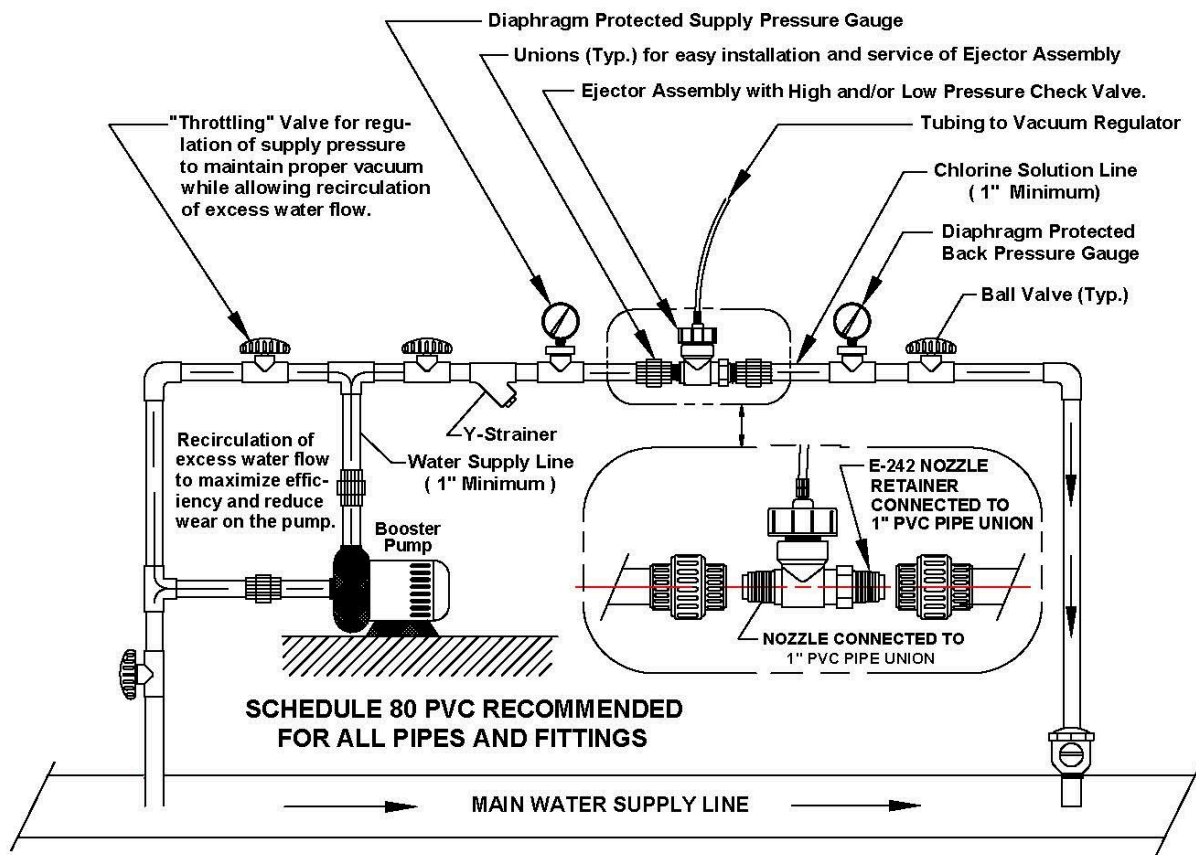
A-950 Ejector

Dual High/High Pressure Check Valve

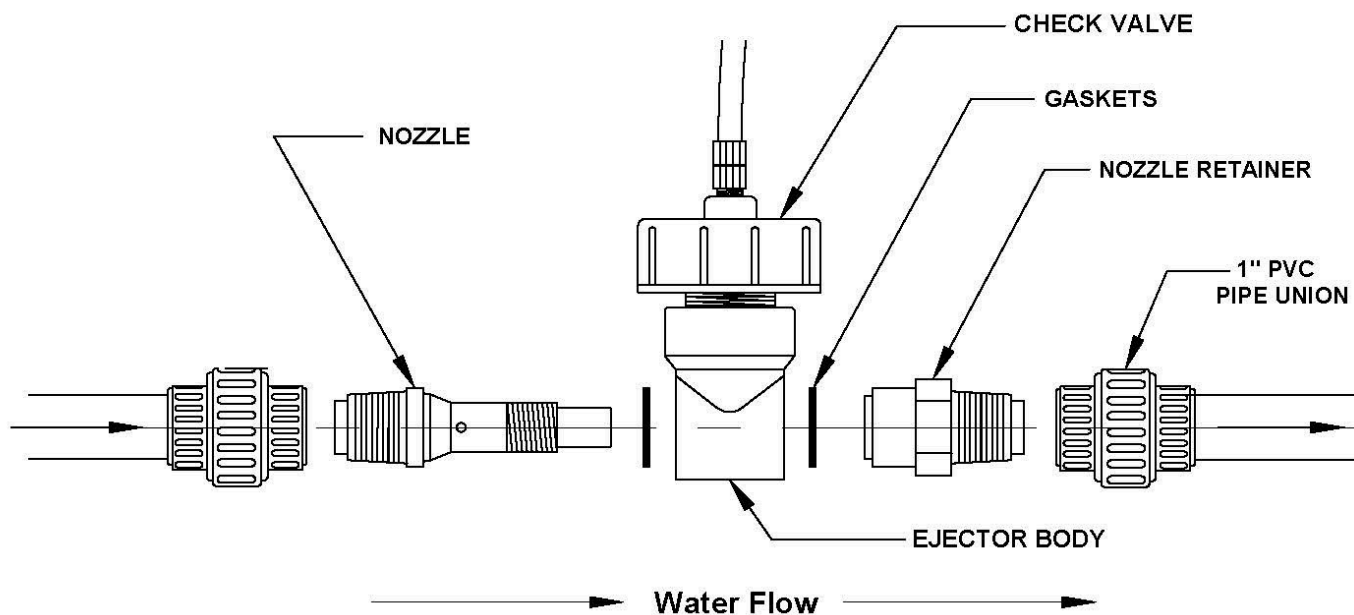
Key Points:

- High or low pressure applications
- Ejector body is bigger and stronger
- Ball check valve with a spring loaded poppet
- Use if water hammer present

TYPICAL INSTALLATION OF THE EJECTOR ASSEMBLY
INTO A SOLUTION LINE FOR POINT OF APPLICATION



EJECTOR ASSEMBLY



The REGAL ejector assembly is one of the main components used in a REGAL water treatment system. The major purpose of the ejector assembly is to create the necessary vacuum to draw chemical gas (CL₂, SO₂ or NH₃) from a storage vessel (cylinder or ton container) and inject it directly into a pressurized water line where the ejector is installed. As the gas exits the vessel, the flow is adjusted via a rate valve (direct or remote) integrated with a REGAL vacuum regulator head mounted directly on the vessel. The gas then flows (via tubing) into the ejector assembly and is instantaneously mixed with water in the pressurized line. The solution is then discharged into the main water supply being treated. A back flow check valve is also incorporated into the ejector assembly to prevent flooding of the system in the event of vacuum loss.

FEATURES

REGAL Ejector Assemblies incorporate the very best available materials with the latest technology in design and construction to help reduce maintenance, simplify construction and improve operation.

MAINTENANCE

Preventive maintenance is recommended and industry standard. Ejectors should be serviced at least yearly. Each ejector has a Repair Kit available.

OPERATION

Pressurized water is forced through the ejector nozzle which converts the pressure to vacuum inside the ejector body. The gas is then drawn into the ejector through a vacuum line that runs from the cylinder (or ton container) mounted vacuum regulator head to the ejector assembly. While entering the ejector, the gas passes through a special back-flow check valve designed to prevent flooding of the system due to back pressure that occurs whenever the system shuts down. Once the gas enters the ejector, it is drawn into the nozzle's vacuum port(s) where it instantly mixes with the water flowing through the nozzle. The water solution is then discharged through the nozzle retainer into the water being treated.

SPECIFICATIONS

The Ejector Assemblies shall be the REGAL Ejector manufactured by Regal Systems, Inc. DBA Chlorinators located in Stuart, Florida. The ejectors will be used to create vacuum via a single piece, venturi recovery-throat nozzle passing through the ejector body and connected in alignment with a nozzle retainer or ejector outlet. An incorporated back flow check valve with ball will prevent water from entering the gas system upon loss of vacuum.

CAPACITIES

Several types of ejectors are available based upon the type of gas being fed, the capacity of the system and the existing hydraulic conditions. The ejector check valves are pressure rated as: Low (0-20 psi), High (over 20 psi) and Variable (High and Low) pressures. Following is a very general guideline for the selection of REGAL ejectors. Model numbers not followed by the letter A or S are used for chlorine (CL₂). Models followed by A (e.g.- A920-A) are used for Ammonia (NH₃) and the letter S (e.g.- A921-S) is for Sulfur Dioxide (SO₂).

VARIABLE PRESSURE (HIGH/LOW or DUAL)

- 1) A-930, A-930-A (0-100 PPD) High/Low
- 2) A-940 (0-500 PPD) Dual
- 3) A-950 (0-500 PPD) Dual
- 4) A-2920 (1000 PPD)
- 5) A-2922 (2000 PPD)

HIGH PRESSURE

- 1) A-920, A-920-A, A-920-S (0-100 PPD)
- 2) A-922, A-922-S (0-250 PPD)
- 3) A-925, A-925-S (0-500 PPD)

LOW PRESSURE

- 1) A-921, A-921-A, A-921-S (0-100 PPD)
- 2) A-923, A-923-S (0-250 PPD)
- 3) A-926, A-926-S (0-500 PPD)

The nozzle retainer or ejector outlet assembly can be tapped directly into the main water supply line or it can be fully plumbed into the pressurized water line to allow the solution to be discharged at a remote/downstream location.

Various types of ejector assemblies are made available based upon the type of chemical being fed, the chemical demand and the hydraulic conditions necessary to provide sufficient vacuum for the system. The basic components consist of an ejector body, nozzle, nozzle retainer and check valve.

See drawings.

The standard REGAL ejectors are designed to withstand static pressure up to 200 psi, however, this may vary if certain conditions such as "water hammer" exist. The amount of water required to operate the ejector depends upon the size of the nozzle as well as the required differential of supply pressure to back pressure.



CONTENTS/COMPONENTS GUIDE

HIGH/LOW BACK PRESSURE EJECTORS FOR CHLORINATORS & AMMONIATORS

MODEL A-930 and A-930-A

100 PPD (2000 g/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-210 Ejector body with gaskets
 - 1 - E-230/E-234 Nozzle with universal water supply connection
 - 1 - A-305/A-305-A Back pressure check valve w/ ball (3/8" fitting)
 - 1 - E-242 Nozzle retainer
- Approximate Ship Weight: 2 lbs.*



DUAL CHECK VALVE EJECTORS FOR CHLORINATORS

MODEL A-940

UP TO 500 PPD (10 kg/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-210 Ejector body with gaskets
 - 1 - E-230/E-234/E-533 Nozzle with universal water supply connection
 - 1 - A-306 Back pressure check valve w/ ball (3/8", 1/2", or 5/8" fitting)
 - 1 - E-242 Nozzle retainer
- Approximate Ship Weight: 3 lbs.*

MODEL A-950

UP TO 500 PPD (10 kg/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-557 Ejector body with gaskets
 - 1 - E-230/E-234/E-533 Nozzle with universal water supply connection
 - 1 - A-949 Back pressure check valve w/ ball (3/8", 1/2", or 5/8" fitting)
 - 1 - E-242 Nozzle retainer
- Approximate Ship Weight: 3 lbs.*

HIGH CAPACITY EJECTORS FOR CHLORINATORS

MODEL A-2920

1000 PPD (20 kg/hr) MAXIMUM FEED RATE

Includes:

- 1 - A-2000 Check valve assembly
 - 1 - E-827 Ejector body with gaskets
 - 1 - E-830 Ejector throat
 - 1 - E-833 Nozzle
- Approximate Ship Weight: 6 lbs.*

MODEL A-2922

2000 PPD (40 kg/hr) MAXIMUM FEED RATE

Includes:

- 1 - A-2000 Check valve assembly
 - 1 - E-827 Ejector body with gaskets
 - 1 - E-830 Ejector throat
 - 1 - E-831 Nozzle
- Approximate Ship Weight: 6 lbs.*

HIGH BACK PRESSURE EJECTORS FOR CHLORINATORS, SULPHONATORS & AMMONIATORS Rated for back pressures above 20 psi (1.4 kg/cm²)

MODEL A-920, A-920-S and A-920-A

100 PPD (2000 g/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-210/E-710 Ejector body with gaskets
 - 1 - E-230/E-234 Nozzle with universal water supply connection
 - 1 - E-225/E-225-S/E-225-A Back pressure check valve (3/8" fitting)
 - 1 - E-242 Nozzle retainer
- Approximate Ship Weight: 1 lb.*

MODEL A-922 and A-922-S

250 PPD (5000 g/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-210/E-710 Ejector body with gaskets
 - 1 - E-230/E-234 Nozzle with universal water supply connection
 - 1 - E-227/E-227-S Back pressure check valve (1/2" fitting)
 - 1 - E-242 Nozzle retainer
- Approximate Ship Weight: 1 lb.*

MODEL A-925 and A-925-S

500 PPD (10 kg/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-210/E-710 Ejector body with gaskets
 - 1 - E-533 Nozzle with universal water supply connection
 - 1 - E-525/E-525-S Back pressure check valve (5/8" fitting)
 - 1 - E-540 Nozzle retainer
- Approximate Ship Weight: 1 lb.*

LOW BACK PRESSURE EJECTORS FOR CHLORINATORS, SULPHONATORS & AMMONIATORS Rated for back pressures of 0-20 psi (1.4 kg/cm²)

MODEL A-921, A-921-S and A-921-A

100 PPD (2000 g/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-210/E-710 Ejector body with gaskets
 - 1 - E-230/E-234 Nozzle with universal water supply connection
 - 1 - A-300/A-300-S/A-300-A Back pressure check valve (3/8" fitting)
 - 1 - E-242 Nozzle retainer
- Approximate Ship Weight: 2 lbs.*

MODEL A-923 and A-923-S

250 PPD (5000 g/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-210/E-710 Ejector body with gaskets
 - 1 - E-230/E-234 Nozzle with universal water supply connection
 - 1 - A-320/A-320-S Back pressure check valve (1/2" fitting)
 - 1 - E-242 Nozzle retainer
- Approximate Ship Weight: 2 lbs.*

MODEL A-926 and A-926-S

500 PPD (10 kg/hr) MAXIMUM FEED RATE

Includes:

- 1 - E-210/E-710 Ejector body with gaskets
 - 1 - E-533 Nozzle with universal water supply connection
 - 1 - A-350/A-350-S Back pressure check valve (5/8" fitting)
 - 1 - E-242 Nozzle retainer
- Approximate Ship Weight: 2 lbs.*

IMPORTANT:

Parts for Chlorinators, Sulphonators and Ammoniators are made of different materials and are not interchangeable.

