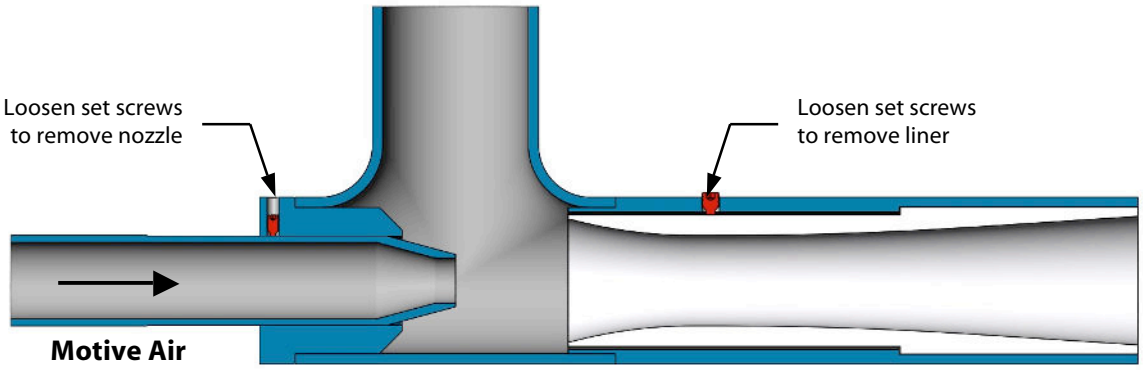
Fox Ceramic Lined Eductors

Ceramics are very fragile and will chip or shatter very easily! Handle with extreme care!

Initial Installation

1. Please refer to the eductor installation drawing supplied in a green envelope with your equipment. This should include a customized outline drawing and our standard installation Instructions.
2. There are two methods used by Fox for holding the ceramic liner inside the eductor body. Eductors 4" and smaller use three soft-tipped set screws, which tighten down gently on the ceramic liner. 5" and 6" units employ a steel retaining ring at the discharge end, also held in place with three set screws.
3. Inspect the inside of the eductor body and ensure that it is completely free of any foreign matter.
4. It is not recommended that you remove the ceramic liner before operation. The vast majority of replacement liners are ordered because of damage in handling, rather than due to erosive wear.
5. Ensure that the nozzle tip is positioned roughly at the centerline of the eductor's suction port. The nozzle is generally set at the optimum position before shipping.



Removing/Replacing the Ceramic Liner

PLEASE REMEMBER - THE CERAMIC LINER IS ESSENTIALLY A PIECE OF GLASS.

1. Remove the set screws, which hold in either the liner itself or the retaining ring. Remove retaining ring.
2. Loosen set screws which hold in the motive nozzle, and remove. Inspect for wear.
3. Using a wooden or plastic rod, gently push the liner out through the eductor discharge. If you wish to reuse this liner make sure it does not fall to the floor. *Note that the 6" eductor uses a two-piece ceramic liner.*
4. When installing a new liner, please coat the inside of the eductor body with a thin layer of grease. This will facilitate future removal.

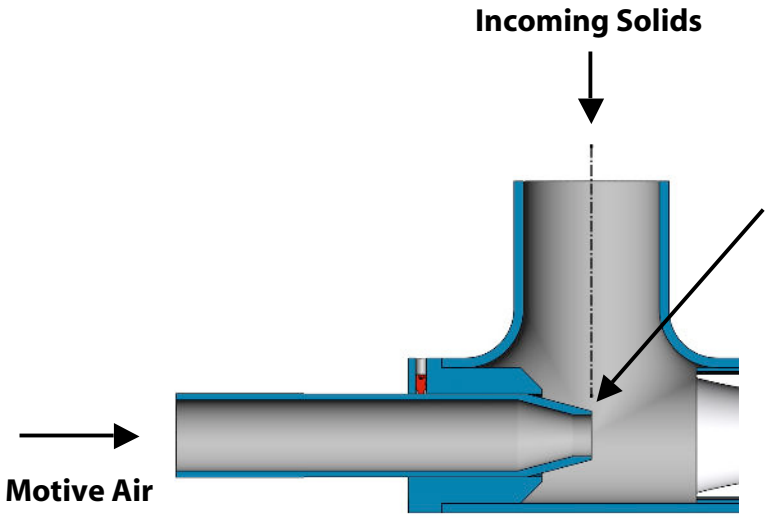
Extending Service Life of your Ceramic Lined Eductor: Care of Your Eductor's Motive Nozzle

The removable motive nozzle of the eductor is critical to eductor performance. Sitting in the middle of the incoming stream of entrained abrasive particulates, with some rather high velocities near its tip, the nozzle is a possible wear point. Wear at the nozzle tip can result in rapid, irreparable damage to the eductor by erosive wear. This can be avoided or postponed through some minor maintenance efforts.

PLEASE SEE REVERSE

Extending Nozzle (and Eductor) Service Life

The ceramic liners installed in Fox conveying eductors have shown remarkable longevity in some very, very abrasive service. However, failure has occurred most often when a very small part of the nozzle tip is worn away by the incoming stream of product. This wear enables an erosive jet to be created, impinging on an unlined portion of the eductor interior. The nozzles themselves are relatively inexpensive and easily replaced, so care and maintenance of the nozzle is justified to prolong the service life of the eductor.

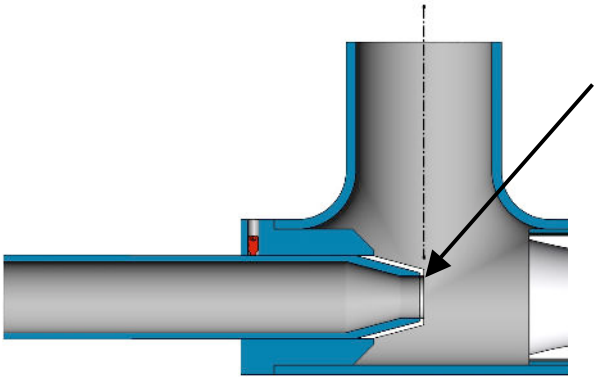


If the top of the nozzle tip is worn away, a stream of motive air will suddenly jet to an unlined part of the eductor interior. This blasting action can result in rapid wear.

1. Inspecting the nozzle tip - After the first few weeks of service, remove your motive nozzle and see if the tip is showing signs of erosive wear. If so, then rotate the nozzle per below.

2. Rotating the nozzle - Make an initial reference mark on the nozzle and eductor bearing to show the starting position of the nozzle. Once a month, the nozzle should be rotated at least 45° (in the same direction). This will ensure that a different part of the nozzle tip is presented to the product stream on a regular basis.

3. If your nozzle is showing significant wear, we recommend replacing it with a ceramic-coated nozzle. This has a thin, but very durable ceramic coating applied to the exposed part of the nozzle, ensuring significantly longer service life. If you are interested in this alternative please consult the factory. Please note that we still recommend rotating the nozzle.



Ceramic spray coating or other surface hardening options are available to prolong service life of the motive nozzle.