



# Alfa Laval Niagara Wet Surface Air Coolers (WSAC)

## Spray nozzle replacement parts and services

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### Services for sustainable operation

Alfa Laval offers a wide range of services for your WSAC cooling system. Our equipment specialists support you throughout its entire service life and help ensure sustainable operation with minimal environmental impact.

### Spray nozzle replacement parts and services

If your existing spray nozzles become clogged your system may not be achieving peak thermal performance. A WSAC service expert can offer troubleshooting, performance and condition audits. We will provide recommendations to help you maintain system efficiency, thermal performance and maximum reliability.

All components in your WSAC system have been carefully selected for durability and safe operation. We strongly recommend that you only use nozzle parts provided by Alfa Laval. By using parts from other suppliers you may compromise operating reliability and uptime.

We now offer a new anti-clog nozzle which allows for debris up to 1" diameter to pass through. The nozzle is a direct replacement to older styles. We also provide installation services.

### Nozzle features and benefits

- Quarter turn, quick disconnect for easy install
- No modifications required to existing spray system
- Clog resistant design
- Made of durable polypropylene for strength and long operational life
- Positive internal orifice retention during pump cycling
- Keeps your equipment running at peak performance

### How to order

Alfa Laval is your single source for genuine, high quality OEM parts for your WSAC system. Because we possess full knowledge and documentation of your system, as well as extensive service experience, we can quickly identify the necessary parts and services to maintain your system's performance. Contact Alfa Laval Niagara at +1 716-875-2000 or email to [niagara.parts@alfalaval.com](mailto:niagara.parts@alfalaval.com).

Learn more about our services for Alfa Laval Niagara WSAC systems at: [www.alfalaval.com/wsac/service](http://www.alfalaval.com/wsac/service)



### Troubleshooting clogged nozzles

When nozzles become filled with dirt and debris they do not provide the drenching spray needed for optimal thermal performance. The nozzles (shown at left) were clogged and provided a weak, sparse spray pattern which did not fully wet the coils. A poor distribution can cause scaling on coils and result in a loss of thermal performance. If the condition is left uncorrected and proper spray rate is not restored, the scaling can propagate and become worse. This can even cause micro-corrosion sites on the tube wall compromising tube integrity.

### Proper nozzle spray

Properly functioning nozzles (shown at right) provide a complete drenching spray pattern of water over the coils without any dry areas. This is important to keep your tube surfaces free of scale and for your system to operate at peak thermal performance. The new improved replacement nozzles have wide openings with external distribution plates to minimize clogged nozzles, allowing for debris up to 1" diameter to pass through. The quick disconnect feature makes it easy to remove the old nozzles and install the new nozzles to upgrade your spray system. The new anti-clog nozzles allow your system to run optimally for long periods using poor quality water without doing nozzle removal/clean out. Very little maintenance/clean out of the spray nozzles is required while still maintaining optimal spray coverage. Water treatment is also always recommended to control biological growth for the best operating performance of your cooling system.



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