

Cartridge Service Life Determination

Three valid ways for you to estimate a cartridge's service life

1. Conduct [Experimental Tests](#)

- Can save money by providing a more accurate service life value instead of relying on conservative assumptions made by other methods.
- Most reliable method, especially for multiple contaminants.
- Can be used to validate an existing change schedule.
- Will likely take time and money to perform the tests.

2. Use the [Manufacturer's Recommendation](#)

- Can result in a more accurate estimate for your particular brand of respirator.
- Relies on the manufacturer's broad knowledge and expertise.
- May not be possible if the manufacturer is unable to provide a recommendation.
- May not account for all workplace and user factors adequately.

3. Use a [Math Model](#)

- Inexpensive and takes little time.
- Requires no math calculations if you use NIOSH's [MultiVapor™ Version 2.2.3 Application](#).
- Not as accurate as experimental testing. May result in a service life estimate that is shorter than it needs to be due to conservative assumptions.
- Generally limited to single contaminant situations.

<https://www.osha.gov/etools/respiratory-protection/change-schedules>