



Is it Time to Replace Your Old CO₂ Incubator?

A CO₂ incubator requires scheduled service maintenance to avoid any unexpected downtime and potential loss of the unit. A well-serviced component of the incubator keeps the operation running smoothly for years to support the growth of cell cultures. Thus, most laboratories choose to maintain the service performance tasks of the unit instead of replacing.

However, as years go by, repairs and maintenance on units become costly, especially if the parts of the CO₂ incubator are already out of warranty or become obsolete. Additional costs may also occur from periodic breakdowns such as unmet production schedules resulting in increased labor and reduced productivity. Here's when it leaves us in dire straits– is it worth it to continue servicing a time-worn CO₂ incubator or is it time to procure a new unit?

CO₂ INCUBATOR REPLACEABLE PARTS

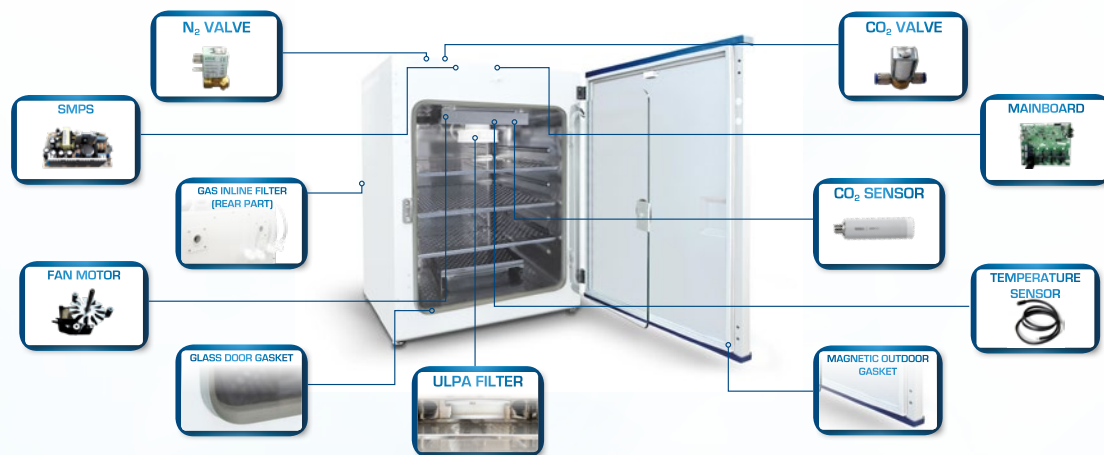


TABLE 1. MAINTENANCE COST OF CO₂ INCUBATOR OVER TIME

No	Description of Task to Perform	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1	Annual validation and testing	X	X	X	X	X	X	X	X	X	X
2	Replace ULPA filter if any	X	X	X	X	X	X	X	X	X	X
3	Replace inline filter	X	X	X	X	X	X	X	X	X	X
4	Replace magnetic outer door gasket		X		X		X		X		X
5	Replace glass door gasket			X			X		X	X	X
6	Replace solenoid valve for CO ₂								X		
7	Replace solenoid valve for N ₂								X		
8	Replace fan motor								X		
9	Replace CO ₂ sensor								X		
10	Replace temperature sensor								X		
11	Replace mainboard								X		
12	Replace SMPS								X		
13	Replace ventilation fan if any								X		
Estimated maintenance cost in % (yearly) over new CO ₂ incubator unit		10%	12%	12%	12%	10%	15%	10%	55%	12%	12%
Estimated maintenance cost in % cumulative (yearly) over new CO ₂ incubator unit		10%	22%	34%	46%	56%	71%	81%	136%	148%	160%

Note: Maintenance cost will vary from make, model, parts availability, and service providers.

Table 1 shows the detailed maintenance cost of a standard CO₂ incubator. Across the years, three maintenance performances are constant: annual validation and replacement of ULPA filter and inline filter. Yearly usage of the equipment correlates to more maintenance. In year 8, the table shows that almost all service maintenance performances are highly recommended. **The estimated maintenance cost (yearly) could reach up to 55%, and the cumulative cost (yearly) will be 136% higher compared to the price of a new CO₂ incubator unit.** Esco recommends procurement of a new CO₂ incubator instead of resorting to equipment service maintenance which can be costly especially during year 8 of usage.

Ensure that your equipment is constantly renewed and updated to avoid high maintenance costs. A new unit will translate to more efficient and reliable performance.



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