Total Cost of Ownership



One of Belimed's primary goals is to keep our customers for the lifetime of their facility and to promote the benefits of technology and Total Cost of Ownership (TCO)



Cost Transparency for the Life of Your Facility

Total Cost of Ownership (TCO) is sometimes called life cycle cost analysis, and is a calculation used to show all the actual costs of your machines over a typical lifetime.

Apart from initial purchase, installation and setup costs, there are always substantial costs for validation, operation, maintenance, repairs and upgrade of the same equipment over the useful life of the facility.

For Belimed customers, our new TCO Calculator offers a new way of thinking and can highlight significant benefits between purchase price and total life cycle costs, especially when viewed across a long ownership period typical for washer-disinfectors and sterilisers.

Just as only 10% of an iceberg is only visible from the surface, the initial purchase cost of a machine should not be the only consideration -90% of the costs are hidden.

TCO is growing in importance for hospitals, life science facilities and is equally important for laboratory equipment and medical equipment alike, where significant maintenance or operating costs exist throughout ownership life.

Chemistr

4%

1st Year Cost

Machine Cost (incl. Install) 60%

10 Year Cost

Operation 45%

Wate

1%

Operatio 21%

Chemistry

9%

Water

3%

Power

12%

Service &

Maintenance 11%

Power 7%

Service &

Maintenance 3%

Infrastructure

4%



The Belimed iceberg of hidden costs

Typical cost split (4 x WD 290 machines)

Infrastructure

9%

More and more Belimed customers in multiple regions are requesting all-inclusive extended warranty packages, including service costs for the period, all wear and spare parts and callout and repairs as necessary.

Obvious Costs

The obvious costs in TCO are the costs familiar to everyone involved during planning and vendor selection, such as:

- Acquisition costs: the costs to design and specify equipment, select and evaluate vendors, bidding costs, ordering or inventory costs
- Equipment cost: The actual price paid for the Belimed equipment
- Initial installation cost: costs of configuring the machines, electrical and mechanical installation cost and engineering / commissioning
- Set up costs: costs to transport the machines to site, customs duties and taxes, integrating with other equipment



A balance must be made between non-recurring costs (CAPEX) and ongoing operating and maintenance costs (OPEX) over the lifecycle.

Other benefits such as reduced system downtime and the resulting productivity improvement, reduced cycle times for machines, environmental impact and costs of staff are difficult to quantify but will be highlighted where possible.

Hidden Costs

The so-called hidden costs are the less obvious cost consequences that are easy to overlook or omit from purchasing decisions or vendor selection. Costs of this kind belong in a TCO analysis if they affect decisionmaking and are significant enough to matter. Hidden costs may include:

- Maintenance costs: warranty costs, maintenance labour, contracted maintenance services or other service contracts
- Wear / Spare parts costs: Costs for components used during the usual operation of the machine, plus any repair components one could reasonably expect during the machine lifetime
- Upgrade / Enhancement / Refurbishing costs: Whether there is value in extending or upgrading existing equipment compared with new purchase Validation costs: the costs to ensure that the Belimed equipment is functioning according to desired regulations and norms (and any cost of non-compliance)
- Operating costs: for example, human (operator) labour, or energy / fuel costs
- Change management costs: costs of operator training, workflow / process changes
- Infrastructure costs: costs for water treatment, ventilation systems, steam generation, lighting or
- Environmental impact costs: for example, costs of waste disposal / clean up, or pollution control, or the costs of environmental impact reporting Insurance costs
- Disposal / depreciation costs

IT support



Belimed provides a comprehensive set of service packages

Belimed offers our customers washing, disinfection and sterilizing solutions enabling the highest efficiency for infection control and equipment reprocessing and integration into the electronic data flow of the customer facility. Solution efficiency includes both process and economic efficiency and Belimed solutions offer low operating cost per output unit, both in Medical as well as in Life Science applications.

Belimed measures the economic efficiency of our equipment as Total Cost of Ownership (TCO). We prioritize creating value for our customers with low TCO over short-term profit. Other lifecycle costing methods are based upon linear calculations, which make little sense as they do not factor in the age or wear of the machine nor the service profile of the machine over time.

The Belimed TCO Calculator is based upon a profile of actual service costs over the lifetime of the machine using feedback from Belimed service teams and historical data (repairs and callouts). Wherever possible, the number of machine cycles per year should be estimated per machine type.



Preventive maintenance visits



Wear- and spare parts



Emergency callout and repairs

A Shift from CAPEX to OPEX

Many of our customers are now focusing on the operating costs for the lifecycle of their facilities (OPEX) as opposed to simply assessing capital expenditure (CAPEX) for new equipment. Customers from both Belimed sectors Medical and Life Science are now looking at long-term, all-inclusive service contracts to measure equipment performance. The Belimed TCO Tool provides different cost models for selected machines over extended periods (between 2 and 10 years) and should provide cost transparency for investment and planning decisions.

It's basically the same as selecting a 10 year fixed rate mortgage for your house, you know exactly how much you're going to pay.



TCO Calculation Tool

Belimed has created a new TCO Tool which calculates lifecycle costs for all Belimed machines over extended periods (from 2–10 years*). The tool compares technical metadata from each machine with historical service data to create a "TCO Profile" over the period. The tool calculates both a preventive maintenance service package (Standard) and an all-inclusive option (Premium) based upon the number of machines, the project location and the typical machine operation.

* Whilst many Belimed machines continue to operate for many years, all-inclusive TCO contracts should NOT exceed 10 years, however longer TCO periods can be calculated for guideline purposes.

What is included within the Belimed TCO cost model?

The Belimed TCO package includes the following:

Description of Service Work	Belimed TCO Standard (PM + Parts)	Belimed TCO Premium (All-inclusive)
TCO Contract period	2–15 years	2–10 years
Preventive maintenance visits according to machine operation (cycles)	1	1
Maintenance kits of wear parts	√	1
Travel and subsistence, according to site location	1	1
All spare parts for the period as necessary	Additional	1
Callout and Repairs for the TCO period	Additional	1
Replacement components as necessary	Additional	1
Log book records and service reports	1	1
Inflation and discounts for the TCO period	√	1
Yearly performance audit and report	Option	1
Equipment report and migration planning	<i>✓</i>	\checkmark
Estimates of power, water and consumables	1	1
Validation and Testing	Option	Option

Which Equipment can be Included?

Extended warranty services packages can be provided for all new Belimed machines supplied within Hospitals, Laboratories, Clinics, Life Science facilities and industrial plants.

Equipment Type	Medical	Life Science
Washer-Disinfectors	WD 1xx, WD 2xx WD 425	PH 810, PH 820, PH 840, PH 860
Large Washers	WD 3xx, CS 750, WD 750	PH 880
Sterilizers	MST-V MST-H	PST, LST BST
Racks, trolleys	Not included	Not included
Accessories	ELD, WTD WA 290	ELD, WTD

Utilities and Consumables

The TCO contains performance data (per cycle) for each machine, which can be multiplied by the estimated machine usage and the total TCO period to provide an estimated cost for utilities and consumables:

- Estimated consumption of water per year and for the total TCO period
- Estimated power consumption per year and for the total TCO period
- Estimated consumption of chemistry / detergent per year and for the total TCO period

This data can be extremely useful when evaluating the payback (ROI) of water-saving or heat recovery options and can also be used to provide a carbon footprint for the facility.

The Belimed TCO Tool is not a complete cost-benefit analysis as it is difficult to estimate other business benefits such as the increased processing of instruments, increased revenues, data and diagnostics, improved operational capability or improved product guality. Another area that is not calculated are avoided costs such as downtime, temporary workaround and overtime.

Auxiliary components such as steam generators (ELD), heat exchangers or automation systems will require regular service and maintenance and can be included in the TCO calculation. Other accessories such as racks and trolleys would NOT be part of the TCO calculation as they do not usually 'wear out' over time.

If the whole rack or trolley breaks, this would probably be due to incorrect usage and would not be covered under a service agreement. Individual rack components which need replacing (plastic connectors, wheels etc.) can be ordered separately from your local service technician.

and lifecycle calculations.

Please contact your local Belimed Service Team for more details of our Total Cost of Ownership packages



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