

PRESENTS



Price information and profitability calculation

		PREVIOUS COSTS		COSTS WITH LILIAN	
COST FACTOR		PER UNIT	PER MONTH AND BASIN	PER UNIT	PER MONTH AND BASIN
١٢	1. CHEMICALS	0,33 EUR / measuring round	29,70 EUR	1,196 EUR pro SensoStick	107,64 EUR
IATERI	2. ACCESSORIE	0,10 EUR / measuring round	9,00 EUR	No accessories required	0,00 EUR
Σ	3. MAINTENANCE AND CALIBRATION	0,03 EUR / measuring round	2,70 EUR	No Maintenance contract necessary	0,00 EUR
SUBTOTAL		41,40 EUR		107,64 EUR	
STAFF	4. MEASUREMENT	6 Minuten = 1,88 EUR	168,75 EUR	1 Minute = 0,31 EUR	27,90 EUR
	5. CLEANING AND DISPOSAL	2 Minuten = 0,63 EUR	56,25 EUR	No cleansing required	0,00 EUR
	6. DIGITAL DOCUMENTATION	2 Minuten = 0,63 EUR	56,25 EUR	Direct digital measured values	0,00 EUR
SUBTOTAL		281,25 EUR		27,90 EUR	
TOTAL PER VESSEL AND MONTH		322,65 EUR		135,54 EUR	

In addition, please consider the one-time purchase of the LILIAN handheld meter in the starter set of 1.799 EUR.

The costs per month take into account the three times per day measurement according to german DIN 19643 and assume that your facility is open 30 days per month.

This means: Cost per month and basin = cost per unit * 3 * 30.

You still have to multiply this cost by the number of pools you have.

Example: A facility has 5 pools. Then you get as monthly total costs 5 * 322,65 EUR = 1.613,25 EUR as previous measuring costs and 5 * 135,54 = 677,70 EUR as measuring costs with the LILIAN. So you save almost 1000 EUR per month! Multiply these costs by 12 to get your individual total annual costs.

IN THIS SIMPLE EXAMPLE, YOU WILL SAVE 12,000 EUR PER YEAR BY SWITCHING TO THE LILIAN MEASUREMENT SYSTEM.

1 Average personnel costs in Germany for master craftsman for pool management 18.75 EUR / hour AG-gross

YOU WILL HAVE SAVED THE PURCHASE COSTS FOR THE LILIAN HANDHELD METER SEVERAL TIMES IN THE FIRST YEAR!

The cost factors are described in more detail in the appendix and show how the above figures were determined. If you believe that your facility incurs costs other than the assumed actual costs, feel free to set your own figures against them for items 1-6. The explanations on the last pages of this brochure may help you to do so.

Another hint: CONSIDER HOW YOU CAN BEST BENEFIT FROM THE REDUCTION IN PERSONNEL COSTS.

Maybe the pool attendant only needs to be on site half an hour instead of a full hour before the pool opens? Maybe their trained professional can use their time better than to take measurements? Can more swimming lessons perhaps be offered? Could better monitoring of bathing operations perhaps lead to fewer accidents?

Only you can answer questions like these.

IN ADDITION TO THE DIRECT FINANCIAL BENEFITS, CONSIDER OTHER POSSIBLE FACTORS:

- Increased safety of bathers due to more complete monitoring by the swimming pool attendant
- Forgery-proof documentation, no more transmission errors
- Measurement results independent of persons allow measurements to be carried out by other employees in the event of illness or a shortage of skilled personnel
- More sustainability due to less chemicals and recycling procedures
 - Possibly lower inspection frequency by the authorities due to fewer measurement deviations



In general, incomplete or inaccurate control of water values can lead to bathroom closures or germ and legionella contamination in the bathroom3.

The resulting costs are immense and can run into six figures.



THE LILIAN CAN THEREFORE BECOME AN IMPORTANT COMPONENT IN YOUR HYGIENE MANAGEMENT AND POTENTIALLY PROTECT YOU FROM THE GREATEST POSSIBLE DAMAGE - A BATHROOM CLOSURE DUE TO MASSIVE DECONTAMINATION MEASURES IN YOUR FACILITY!

You are welcome to include such important arguments, which cannot be directly represented in cost accounting, in your considerations.

If you need support, we are always there for you. Together with you, we will work out the cost situation of your facility and calculate your possible savings. Or simply use our Excel cost calculation tool with which you can determine your individual savings potential. This is available at https://lilianlabs.com/en/downloads-en/.

We look forward to your feedback. Your LILIAN Labs team



3 Bundesgesundheitsblatt – Gesundheitsforschung – Gesundheitsschutz 2, 2014, 57: S. 258-279, "Hygiene requirements for baths and their monitoring", Springer Verlag Berlin Heidelberg

EXPLANATIONS OF THE 6 COST FACTORS

1. COSTS FOR CHEMICALS

According to DIN 19643, you must determine the parameters pH value, free chlorine, combined chlorine and total chlorine three times a day. This incurs costs for chemicals, which must of course be of a quality appropriate for pro-fessional use.

PREVIOUS MEASUREMENTS	MEASUREMENTS WITH LILIAN
Professional quality chemicals are available in droplet or tablet form. Prices vary, but at approx. 0.20 EUR per measurement para- meter and measurement, you can be sure that you have purchased high quality. For a measurement round with all parameters, this results in costs	With the LILIAN, you no longer need chemicals. The SensoSticks are fully automatic and high-precision microlabs on which all necessary chemicals are integrated. The SensoSticks cost between 1.33 EUR and 1.96 EUR depending on the package selected.
of approx. U.60 EUR.	

Performing a qualified measurement involves regular replacement of measurement equipment that comes into

contact with the water samples and chemicals. With the LILIAN measuring system, you no longer need any accessories, as all sample preparation and post-processing takes place on the SensoStick - say goodbye to stirrers and paper towels.

PREVIOUS MEASUREMENTS	MEASUREMENTS WITH LILIAN
Cuvettes must be changed regularly, otherwise almost invisible residues can falsify subsequent measurements. Stirrers break or disappear, cloths or cleaning agents are needed. These materials add up to about 0.10 EUR per measurement round.	With the LILIAN measuring system, you no longer need any accessories, as all sample preparation and post-processing takes place on the Sen- soStick - say goodbye to stirrers and paper towels.

3. COSTS FOR CALIBRATION AND MAINTENANCE

The measuring instruments must be adjusted and calibrated to obtain the correct measurement results.

PREVIOUS MEASUREMENTS	MEASUREMENTS WITH LILIAN
Most electrical and optical measuring instruments require regular maintenance and calibration. If these are omitted, measurement accuracy and recovery deteriorate significantly over time. In most cases, this is handled through a maintenance contract. In the cost calculation, it is assumed that maintenance is carried out for 300 EUR every 10,000 measurements.	Since the LILIAN calibrates itself with every measurement, there is also no temporal misalignment of the LILIAN measuring device - the measuring accuracy of the system is still like on the first day even after years - without additional costs for you!



4. PERSONNEL COSTS FOR MEASUREMENT

DIN 19643 stipulates that, in addition to electrical measurements, additional manual measurements must be carried out three times a day. This requires qualified personnel. For the cost calculation, the average For the cost calculation, the average salary of a pool specialist was used, which is 18.75 EUR / hour employer gross⁴.

PREVIOUS MEASUREMENTS	MEASUREMENTS WITH LILIAN
To determine all four parameters photometrically with manual preparation, an experienced specialist needs at least 6 minutes. Of course, this assumes that this specialist is available at all. In case of illness, a substitute must be ensured.	With the LILIAN, manual preparation is completely eliminated. All 4 measured values can be determined simultaneously in less than 60 seconds. In the future, don't worry if your measurement supervisor gets sick: Every instructed employee on site can perform the measurement at the push of a button with the same quality!
In addition, photometric measurements in interlaboratory compa- risons show a deviation in measurement accuracy of up to plus/ minus 38.6%. Employee-dependent deviations in the measurement results are therefore completely normal, so that many facilities make considerable efforts to ensure that not too many different	In addition, you no longer need to pay attention to who is performing their measurements: The measurement results with the LILIAN are always accurate and absolutely employee-independent.
people carry out the measurements. In the event that limit values are exceeded during measurements, it must always be ensured that a specialist on site can take the necessary steps to solve the problem.	In the event that limit values are exceeded during measurements, a specialist no longer necessarily has to be directly on site. The alarm sys- tem of the LILIAN Manager notifies selected persons by e-mail or push message within seconds as soon as a limit value is exceeded during a measurement.

5. COSTS FOR CLEANING AND DISPOSAL

For proper operation, all materials that are to be reused and have come into contact with the chemicals must be cleaned afterwards. Otherwise, incorrect measurements may occur.

PREVIOUS MEASUREMENTS	MEASUREMENTS WITH LILIAN
The samples must be disposed of after the measurement and the material that has come into contact with the chemicals must be cleaned. Since subsequent measurements must not be falsified by potential chemical residues, this involves effort. This takes at least 2 minutes, and proper cleaning with chemical due diligence is unlikely to be accomplished in this time. With regard to sustainability, it should also be noted that the dis- posal of chemicals into the wastewater system is not in compliance with the regulations. The manufacturers usually prescribe disposal according to the waste code.	There is no need to clean the equipment at all. The used SensoSticks are collected by you and returned to us if there are sufficient quantities. This is at no extra cost to you; each pack of SensoSticks comes with a completed return slip. We then recycle the SensoSticks properly. This means that the chemicals no longer end up in the wastewater system.

6. COSTS FOR DIGITAL DOCUMENTATION

The measured values determined must be documented in a forgery-proof manner.

PREVIOUS MEASUREMENTS	MEASUREMENTS WITH LILIAN
The measurement results are usually recorded manually on paper after the measurement. Archiving often takes place by transferring the values to an Excel spreadsheet in the evening, for example. This can lead to transmission errors, and the process described is also	Forget paper and pen: With LILIAN Manager, measurement data is automatically digitized and stored in a central online platform. This is absolutely forgery-proof, DSGVO-compliant and fully automatic.
not forgery-proof. The correctness of the documented measurement results is never 100% guaranteed in this way, which requires special attention from the managing persons due to the managing directors' liability. The transfer of the measurement results to IT (e.g. Excel) takes an ad- ditional 2 minutes per measurement round.	If required, you can still export the measurement data as an Excel file to your local computer with a mouse click. This ensures 100% that the measured values are documented absolutely correctly - transmission errors are excluded!

4. 2500 EUR employee gross + 20% / 160 working hours per month = 18.75 EUR. Source: Tarifvertrag öffentlicher Dienst
5 H. Fischer, Vergleichsmessungen von Chlor im Beckenwasser mittels photometrischer DPD-Methode, AB Archiv des Badewesens 06/2012.

PARTNERS



















ANY QUESTIONS? Do not hesitate to contact us:

🕐 T. +49 531 - 387 274 36

☑ INFO@LILIANLABS.COM

Follow us on social media:



@LILIANLABS



(POOLS.LILIANLABS.COM)



Lilian Labs GmbH Salzdahlumer Straße 196 38126 Braunschweig Germany

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T. +49 531 387 274 36 info@lilianlabs.com