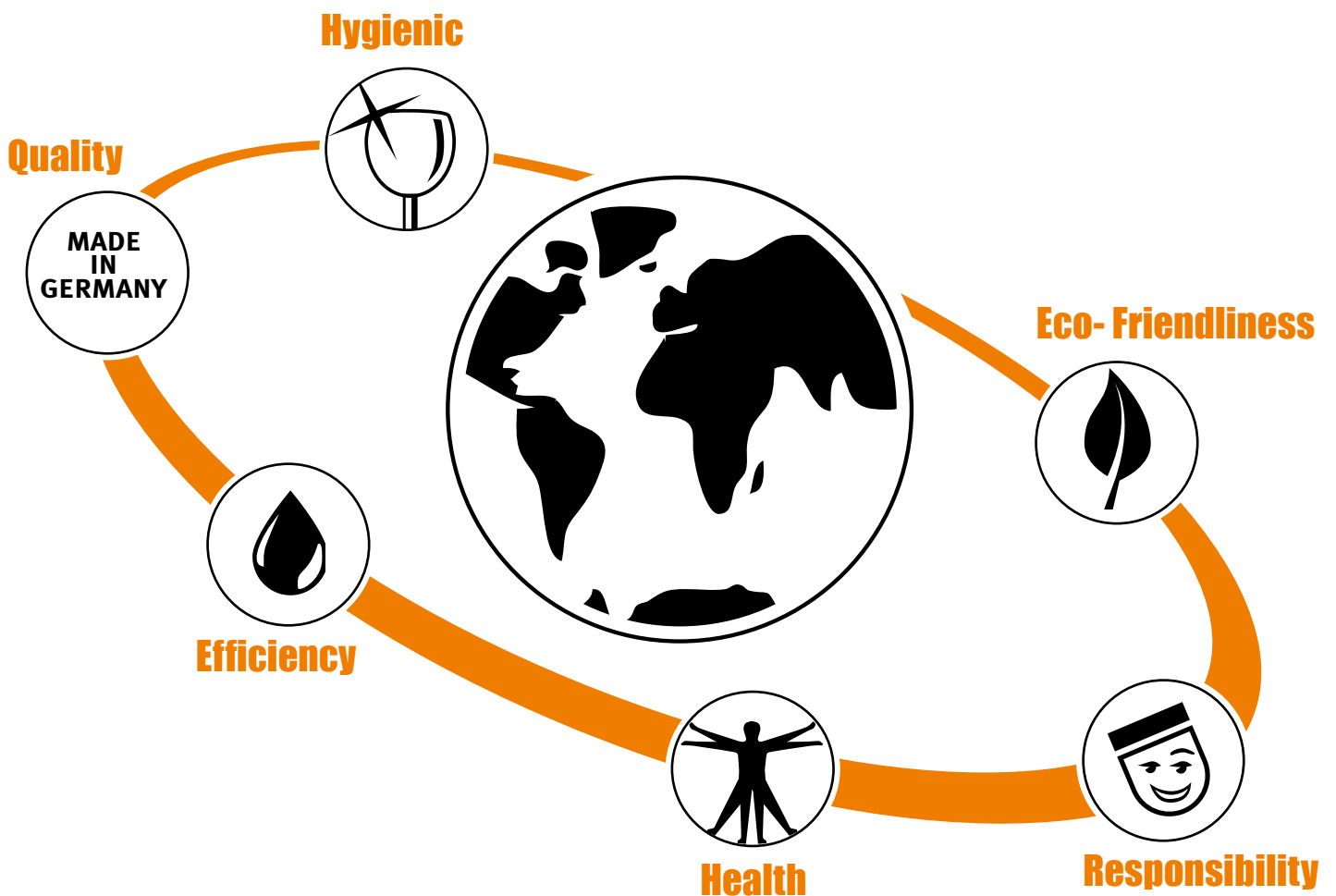




**OPERATING COSTS - CHECK
KNOW MORE. SAVE MORE!**

SAVE MONEY. AND SAVE OUR PLANET!



OPERATING COSTS: WATER CONSUMPTION

Assumption: rinsing 50 glasses per hour, working time 8 hours, 30 days per month.

Basis of calculation: price of one cubic meter fresh water: 1,70€. price of cubic meter sewage: 2,10€ (German price index, source: Focus online 2014)

SPÜLBOY® - GLASS WASHER



Spülboy glass washer combines spatially separated pre-washing and fresh water rinse systems in one device. This enables the application within one sink. At that Spülboy convinces with lowest and most efficient water consumption of 10cl per glass. A one-time initially filling is sufficient due to the continuous supply of fresh water released by each rinsing step.

CALCULATION:

- 50 glasses x 10cl x 8h = 40 l/ day
- 40 l + 5 l initial filling = 45 l
- 45 l x 30 days: 1.350 l = 1,35 m³
- 1,35 m³ x 1,70€ = 2,30€ (fresh water)
- 1,35 m³ x 2,10 € = 2,84€ (sewage water)

Total monthly water consumption: 1.350 l
Total water costs per month: 5,14€

3-PIECE GLASS WASHING BRUSH



Cleaning glasses with a 3-piece washing brush legally requires two sinks. The first sink is needed to pre wash the glasses with the brush. The measurement of a standard sink is 40cm x 30cm x 40cm and the brush (height of the brush 25cm) has to be covered by water. This requires a volume of 41 liter. The water should be changed at least hourly. The second sink is to rinse the glass by fresh water. It requires a permanent circulation of fresh water to keep the water usable. This is done by a flush pipe and takes 750ml each minute.

CALCULATION:

- Filling pre wash sink = 41 l x 8h = 328 l/ day
- Initial filling rinse sink = 40 l
- refreshing rinse water = 750 ml x 60 min = 45 l/ h
- 45 l x 8h = 360 l + 40 l = 400 l/ day
- Water consumption/ day: 728 l
- Water consumption/ month: 21.870 l = 21,9 m³
- 21,8 m³ x 1,70€ = 37,06 € (fresh water)
- 21,8 m³ x 2,10 € = 45,78 € (sewage water)

Total monthly water consumption: 21.840 l
Total water costs per month: 82,24 €

ELECTR. GLASS WASHING MACHINE



An electrical glass washing machine is automatically filled up with water [initial filling 16 l. An average wash cycle takes about 120 – 180 seconds. The basket of the tested device can take up 25 glasses. The tested glass washing machine takes 4,5 l each washing cycle.

CALCULATION:

- 25 glasses á 4,5 l x 2 = 9 l for 50 glasses
- 9 l x 8h = 72 l/ day
- 72 l + 16 l = 88 l
- 88 l x 30 days = 2.640 l ~ 2,64 m³/ month
- 2,64 m³ x 1,70€ = 4,49 € (fresh water)
- 2,64m³ x 2,10 € = 5,54 € (sewage water)

Total monthly water consumption: 2.640 l
Total water costs per month: 10,03€

OPERATING COSTS: ELECTRICITY

Assumption: rinsing 50 glasses per hour, working time 8 hours, 30 days per month.

Basis of calculation: price of one kilowatt hour: 0, 28€ (German price index, source: stromauskunft.de 2015).

SPÜLBOY® - GLASS WASHER



Spülboy glass washer work

- completely without electricity
- very environmental friendly
- with lowest water consumption

The effectiveness and cleaning performance is granted by the combination of fresh, cold water, our special Spülboy glass washing tabs and especially the mechanical abrasion forces of the brush at the glasses inner and outer side.

Total costs for electricity per month: 0,00€
Monthly power consumption: 0 KWh

3-PIECE GLASS WASHING BRUSH



The application of a 3- piece brush requires two sinks and a continuously water supply but

- needs no electricity

Cleaning by a 3- piece brush does not require any electricity but achieves a satisfying cleaning result only under a lot of effort of water and detergents. An additional cleaning step is required as the brush doesn't allows an abrasion all around the glass

Total costs for electricity per month: 0,00€
Monthly power consumption: 0 KWh

ELECTR. GLASS WASHING MACHINE



The tested glass washing machine (6 KW) consumes:

CALCULATION:

- 25 glasses each basket
- 16 wash cycles/ day (8hours) 3 min = 48 min/ days
- 48 min = 0,8 hours
- 6.000 watt x 0,8 hours = 4.800 watt/ 4,8 KW
- 4,8 KW x 0,28€ = 1,34€/ day
- Costs for electricity/ month: 40,32€:

Total costs for electricity per month: 40,32€
Monthly power consumption: 144 KWh



OPERATING COSTS – CHECK



OPERATING COSTS: DETERGENTS & CHEMICALS

Assumption: rinsing 50 glasses per hour, working time 8 hours, 30 days per month.

SPÜLBOY® - GLASS WASHER



One (1) original Spülboy NU glass washing tab grants hygienic clean results for approx. 4 hours. 1 can contains 100 tabs and costs 14,70€

CALCULATION TABS:

- 14,70€ / 100 tabs = 0,15€ each tab
- 0,15€ x 2 = 0,30€ for 8 hours

To clean, disinfect and maintain the brushes we recommend to use our special Spülboy sanitation powder (clean central brush and brush strip) at least every day. Each application needs 30g. 1 can costs 7,20€ and contains 750g.

CALCULATION SANITIZER POWDER:

- 7,20€ / 7500g = 0,0096€/ g
- 0,0096€ x 30g = 0,29€/ application

SUM UP:

0,15€ (tab) + 0,29€ (powder) = 0,59€/ day

Total costs for Spülboy detergents per month: 17,70€

3-PIECE GLASS WASHING BRUSH



For the cleaning procedure with a 3- piece brush a liquid glass washing chemical is usually used. To reach proper effects at least 10ml liquid should be added to 4l water (filled sink). Price for the tested detergent 12, 50€/ liter.

CALCULATION:

- 12,50€ / 1000ml = 0,013€/ ml
- 0,013€ x 10ml = 0,13€/ dosage (sink)
- 0,13€ x 8 hours = 1,04€/ day

It is also necessary to clean and disinfect the brush. For that we recommend to use our special Spülboy® sanitation powder at least every day. Each application needs 30g. 1 can costs 7,20€ and contains 750g.

CALCULATION SANITIZER POWDER:

- 7,20€ / 7500g = 0,0096€/ g
- 0,0096€ x 30g = 0,29€/ application

SUM UP:

1,04€ (liquid) + 0,29€ (powder) = 1,33€/ day

Total costs for liquid detergent per month: 39,90€

ELECTR. GLASS WASHING MACHINE



Electrical glass washing machines need:

- rinse aid -> 10l cost 50,50€ = 0,005€/ml
- cleanser -> 10l cost 42,90€ = 0,004€/ ml
- salt -> 2kg cost 3,15€ = 0,0016€/ g

The tested electrical glass washing machine consumes:

- 0,65ml rinse aid each liter passed through
- 0,70ml cleanser each liter passed through
- 12,5 g each wash cycle

The tested electrical glass washing machine has a water passage of 4,5l each washing cycle.

CALCULATION RINSE AID:

- 0,65ml x 4,5l = 2,93ml each wash cycle
- 2,93ml x 0,005€ = 0,015€
- 0,015 x 16 wash cycles/ day = 0,24€ rinse aid/ day

CALCULATION CLEANSER:

- 0,70ml x 4,5l = 3,15ml each wash cycle
- 3,15ml x 0,004€ = 0,013€
- 0,013 x 16 wash cycles/ day = 0,21€ cleanser/ day

CALCULATION SALT:

- 3,15€ / 2000g = 0,0016€/ g
- 0,0016€ x 12,5g x 16 = 0,02€ = 0,32€ salt/ day

SUM UP:

0,24€ + 0,21€ + 0,32€ = 0,77€ = 23,10€/ month

Total costs for detergents & chemicals per month: 23,10€

SPÜLBOY® - GLASS WASHER



3-PIECE GLASS WASHING BRUSH



ELECTR. GLASS WASHING MACHINE



A INVEST:

SPÜLBOY® - GLASS WASHER

APPLICATION TIME/ DURABILITY/ DEPRECIATION: 3 YEARS

CALCULATION:

- Spülboy: 129,-€
- Installation: 0,-€
- Total costs: 129,-€
- $129\text{-€} / 36 \text{ month} = 3,58\text{€} / \text{month}$

Investment for Spülboy per month: 3,58€

3-PIECE GLASS WASHING BRUSH

APPLICATION TIME/ DURABILITY/ DEPRECIATION: 2 MONTH

CALCULATION:

- 3 piece glass washing brush: 9,50€
- Installation: 0,-€
- Total costs: 9,50 €
- $9,50\text{€} \times 6 / 12 \text{ month} = 4,75 \text{€} / \text{month}$

Investment per month: 4,75€

ELECTRIC GLASS WASHING MACHINE

APPLICATION TIME/ DURABILITY/ DEPRECIATION: 5 YEARS

CALCULATION:

- electrical glass washing machine: 2.980,- €
- installation, setting, Instruction: ca. 320,-€
- delivery (if necessary): ca. 50,-€ (not taken into account)
- Total costs for the electrical machine: 3.300€
- $3.300\text{€} / 60 \text{ month}$

Investment per month: 55€

B MAINTENANCE: REPLACEMENTS & MAINTENANCE

CALCULATION:

- 2x brush head: 9,60€
- 1x middle brush: 14,70€
- 1x brush strip: 18,00€
- external service fees: 0,00€
- $42,30\text{€} / 12 \text{ month} = 3,53\text{€} \text{ per month}$

Monthly Investment for Spülboy: 3,58€
Monthly costs for maintenance: 3,53€

Total monthly costs for Invest & maintenance 7,11€

CALCULATION:

- no
- external service fees: 0,00€
- total costs: 0,00€

Monthly Investment for 3- piece brush: 4,75€
Monthly costs for maintenance: 0,00€

Total monthly costs for Invest & maintenance 4,75€

CALCULATION:

- according to manufacture minimum twice a year maintenance service by external professionals
- perhaps plus extraordinary repairs (not taken into account)
- Total costs for maintenance of electrical glass washer: 300,-€
- $300\text{€} / 12 \text{ month} = 25\text{€} \text{ per month}$

Monthly Investment for electr. glass washer: 55,-€
monthly costs for maintenance: 25€

Total monthly costs for Investment & maintenance 80,-€

CLEAR ADVANTAGE FOR SPÜLBOY

SPÜLBOY® - GLASS WASHER



- operating costs I
Water consumption: 5,14€
- operating costs II
Electricity: 0,00€
- operating costs III
Detergents & Chemicals: 17,70€
- operating costs IV
Investment & Maintenance: 7,11€

Total monthly costs:

29,77 €

3-PIECE GLASS WASHING BRUSH



- operating costs I
Water consumption: 82,24€
- operating costs II
Electricity: 0,00€
- operating costs III
Detergents & Chemicals: 39,90€
- operating costs IV
Investment & Maintenance: 4,75€

Total monthly costs:

127,49 €

ELECTR. GLASS WASHING MACHINE



- operating costs I
Water Consumption: 10,03€
- operating costs II
Electricity: 40,32€/ month
- operating costs III
Detergents & Chemicals: 23,10€
- operating costs IV
Investment & Maintenance: 80,-€

Total monthly costs:

153,45 €

**THINK NEW.
CLEAN GREEN!**