

Cost and Benefit Analysis Comparison of the ECOPATENT®-System with a common bedpan washer

valid until 31.12.2015

Approx. 1/3 of all patients are in need of disposables (hospitals or nursing homes).

Calculation base:

10 Beds (patients) per hospital day

Blue-labeled values are variable

Electricity in Euro/kWh:	0,23	
Cold water costs in Euro/m ³ :	6,16	incl. sewage fees
Hot water costs in Euro/m ³ :	9,98	incl. sewage fees
Staff: Hourly earnings in Euro	16,00	incl. ancillary wage costs

ECOPATENT®-Disposables

per patient/day	Quantity	Price per item Virgin Pulp	Total costs per day Virgin Pulp	Price per item Recycled Pulp	Total costs per day Recycled Pulp	Total pcs	Operating cycles ECO-Finisher Macerator	Operating cycles Bedpan washer
Bedpan/Bedpan liner	1	1,02 €	10,20 €	0,52 €	5,20 €	10	3	10
Bowl for Toilet Seat	0	1,02 €	0,00 €	0,52 €	0,00 €	0	0	0
Urine Bottle	1	1,02 €	10,20 €	0,52 €	5,20 €	10	3	10
Wash Bowl	1	1,02 €	10,20 €	0,57 €	5,70 €	10	3	10
Cover für urine bottle	0,5	0,05 €	0,25 €	0,05 €	0,25 €	5	0	0
Cover for pot/pan	0,5	0,31 €	1,55 €	0,31 €	1,55 €	5	0	0
Urineabsorber	0,5	0,39 €	1,95 €	0,39 €	1,95 €	5	0	0
Total costs disposables per day:			34,35 €		19,85 €	45	9	30

ECO-Finisher-Macerators have a higher capacity and therefore require fewer operating cycles than a bedpan washer which has a capacity of only 1 bedpan or 1 urine bottle per cycle

Costs per day and patient/resident who are dependent on disposables: 10

3,44 € 1,99 €

Calculation base:

Total costs disposables per month:

1.044,24 € 603,44 €

30,4 days

Disposal and disinfection processes

ECO-Finisher Macerator	Bedpan Washer
9	30
28 l	17 l
0 l	21 l
7.803 l	15.504 l
0 l	19.152 l
1,1 KW/h	5 KW/h
3 Min.	8 Min.
0,06 KW/h	0,67 KW/h
0,50 KW/h	20,00 KW/h
15,3 KW/h	608,0 KW/h
2,3 Std	53,2 Std
0,5 min	3,5 min

Savings per macerator/month

19.152
liters water saving

593
KW/h power saving
50,9 Std.
hours time saving

Operating cycles per day
Cold water consumption per operating cycle
Warm water consumption per operating cycle
Monthly consumption of cold water and sewage fee
Monthly consumption of warm water and sewage fee
Power consumption
Operating time of the macerator
Power Consumption per cycle
Power Consumption per day
Power Consumption per month
Working hours per month
Waiting time or preparation/reworking time as well as record keeping by nursing staff

Single costs

Acquisition costs	6.995 €	4.800 €
Delivery costs	65 €	65 €
Installation costs	75 €	75 €
Commissioning and training costs	150 €	150 €
Operational life span in years	5	5
Depreciation per month	116,58 €	80,00 €
Depreciation per year	1.399 €	960 €

ECO-Finisher Macerator	Bedpan Washer
6.995 €	4.800 €
65 €	65 €
75 €	75 €
150 €	150 €
5	5
116,58 €	80,00 €
1.399 €	960 €

Type of monthly operating costs:

Financing/Depreciation	116,58 €	80,00 €
Power Costs	3,53 €	139,84 €
Water costs and sewage fees	48,06 €	286,64 €
Consumption of chemicals / disinfection	45,00 €	88,07 €
Softening agents	0,00 €	25,62 €
Transport Costs Disposables	65,00 €	20,00 €
Costs for Ao classification:	0,00 €	2,08 €
Warranty	12 Monate	12 Monate
Medical Product Validation Costs	0,00 €	10,00 €
Care Service Package / Service and Maintenance	35,00 €	25,00 €
Post-warranty costs for repair	0,00 €	47,50 €
Labor costs	37,16 €	851,20 €
Disposables Virgin Pulp / Reusables	1.044,24 €	40,00 €
Disposables Recycled Pulp / Reusables	603,44 €	
Total with Virgin Pulp Disposables	1.394,57 €	
Total with Recycled Pulp Disposables	953,77 €	

ECO-Finisher-Macerator - 1 disinfection cycle per day

an investigation that is to be carried out according to. MPG u. DIN EN 15883.3

monetary benefit for ECOPATENT due to an additional value of working time

The ECOPATENT disposal system is no medical product and thus not subject to applicable laws and regulations. Disinfection rooms incl. all cleaning and disinfection devices have to be checked regularly by health authorities.

The total cost ECOPATENT®-Sale incl. ECO-Finisher Macerator & Consumables per day, per patient / resident with an average nursing station (KH or APH) with about 30 beds is:

1,53 € Virgin Pulp
1,05 € Recycled Pulp

Cost savings when using ECOPATENT®-Sale with Virgin Pulp Material compared with a bedpan washer

per day	7,28 €
per month	221,39 €
per year	2.656,64 €
in 5 years	13.283,19 €

Cost savings when using ECOPATENT®-Sale with Recycled Pulp Material compared with a bedpan washer

per day	21,78 €
per month	662,19 €
per year	7.946,24 €
in 5 years	39.731,19 €