



WATER SAVING SYSTEM

ELLESS Water Saving System AB
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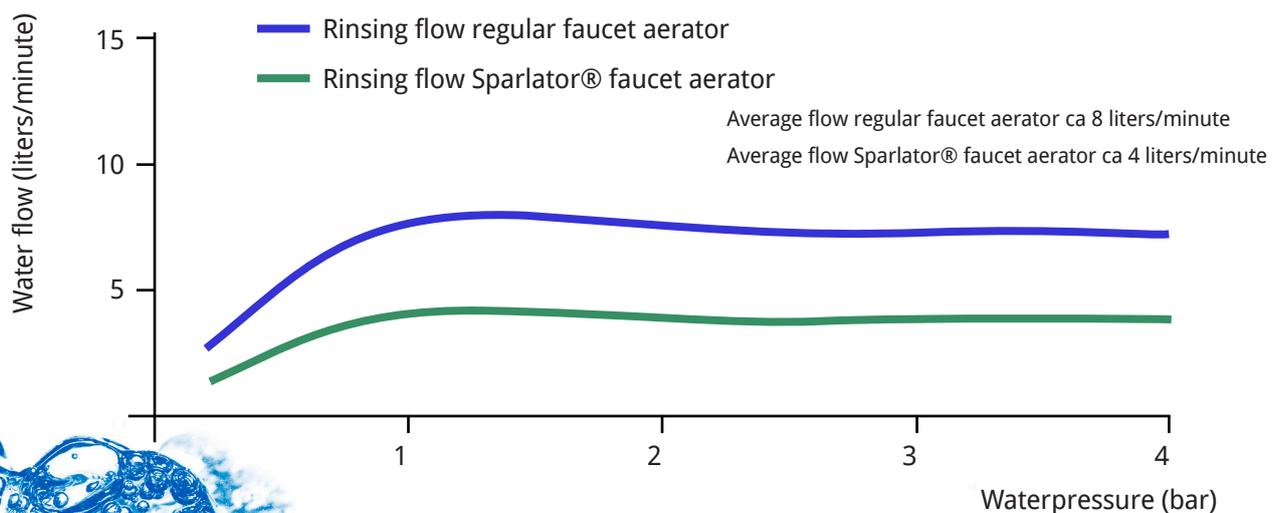
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SAVE WATER & MONEY WITH ELLESS WATER SAVING SYSTEM

Heating of hot water is a large part of the annual heating costs of households (20 - 55 %, depending on how well the house is insulated and its geographical location, villas 20 - 30 %, apartment blocks 30 - 55%). With very small and simple means, the hot water consumption can be decreased with 20 - 50 %, depending on user habits and what other equipment is installed, etc. Calculated as heating costs, this means a decrease by up to 20 % of the total annual heating cost. The pay-back time is very short, often no more than days to months.

If a heating pump is installed, this is yet another reason for decreasing the hot water consumption. A smaller temperature difference between incoming and outgoing heat drastically increases the effect at which the pump has to run. The temperature of the water used for heating is often much lower than the hot water temperature. This means that when only heating, the compressor can work at lower pressure and with a smaller temperature difference, decreasing the risk of wearing out the heating pump to fast since it will work at a lower effect.

The combination of swivel and the superior functionality of our faucet aerators immediately give the user a feeling of increased rinsing comfort, regardless of what type of mixer is used, its age and brand. A decrease in water consumption with 2 - 6 liters/minute can easily be achieved. Also, the Sparlator® water saving products decreases the cold water costs by approximately 20 %.



Air is mixed into the water jet

Sparlator® faucet aerators is easily installed onto the mixer. The construction mixes air into the water, which directly improves the comfort and increases the water pressure. The comfortable flow gives a very high rinsing comfort, even at low water flows.

Save SEK 300 – 2,800 per year and household

Add up all the minutes that a washbasin or sink is used in your household during a day, a week, a year. The numbers increase very rapidly. With the above mentioned actions, a family can decrease its hot water consumption by 30 - 100 liters per day (hot water temperature 37 - 60°C). Annually, this means 10 - 35 m³ per household. The price of one m³ of hot water in Sweden is SEK 30 - 80. The savings are therefore SEK 300 - 2,800 kr per year (depending on number of family members, local water and energy prices, etc).

Savings with Sparlator® faucet aerators

A good rinsing effect is achieved by using 2 - 6 liters less water per minute compared to other aerators (saves 3.8 liters/minute). In energy, this means 150 Wh.

Consumption before installation of ELLESS faucet aerators:

Sink/washbasin, rinsing:	8 liters/minute
Energy consumption:	$8 \times 40^* = 320 \text{ Wh/minute}$

Consumption after installation of ELLESS faucet aerators:

Sink/washbasin, rinsing:	4.2 liters/minute
Energy consumption:	$4.2 \times 40^* = 168 \text{ Wh/minute}$
Savings:	$8 - 4.2 = 3.8 \text{ liters/minute}$
Energy savings at 40°C	$3.8 \times 40^* = 152 \text{ Wh/minute}$
Energy savings at 60°C	$3.8 \times 67^* = 254.6 \text{ Wh/minute}$

*Energy consumption is approximately 40 Wh/liter from 8° C – 40°C and 67 Wh/liter from 8 - 60°C.



Place of use (water temperature 40°C)	Time in use (minutes/day)	Saving effect (liters/minute)	Savings (liters/day)
Sink	10	3.8	38
Washbasin	5	3.8	19
Sum			57

Kitchen

Annual savings, water: $0.038 \times 365 \times 17.5^* = \text{SEK } 243$

Annual savings, energy: $0.038 \times 365 \times 40 \times 0.80^* = \text{SEK } 444$

Annual savings, SEK (water 243 + energy 444) = **SEK 687**

Washbasin

Annual savings, water: $0.019 \times 365 \times 17.5^* = \text{SEK } 121$

Annual savings, energy: $0.019 \times 365 \times 40 \times 0.80 = \text{SEK } 222$

Annual savings, SEK (vatten 121 + energi 222) = **SEK 343**

*The average price of cold water is SEK 17.50 / m³ and the energy price (not including taxes) SEK 0.80 / kWh.

Savings with Sparlator® hand showers

Our hand showers save in average 6 liters/minute (14.4 kWh). It is easy to understand that a lot of water and money can be saved by installing Sparlator®-products.

Consumption before installation of Sparlator® hand showers

Water consumption 14 liters/minute

Energy consumption $14 \times 40^* = \text{560 Wh/minute}$

Consumption after installation of Sparlator® hand showers

Water consumption 8 liters/minute

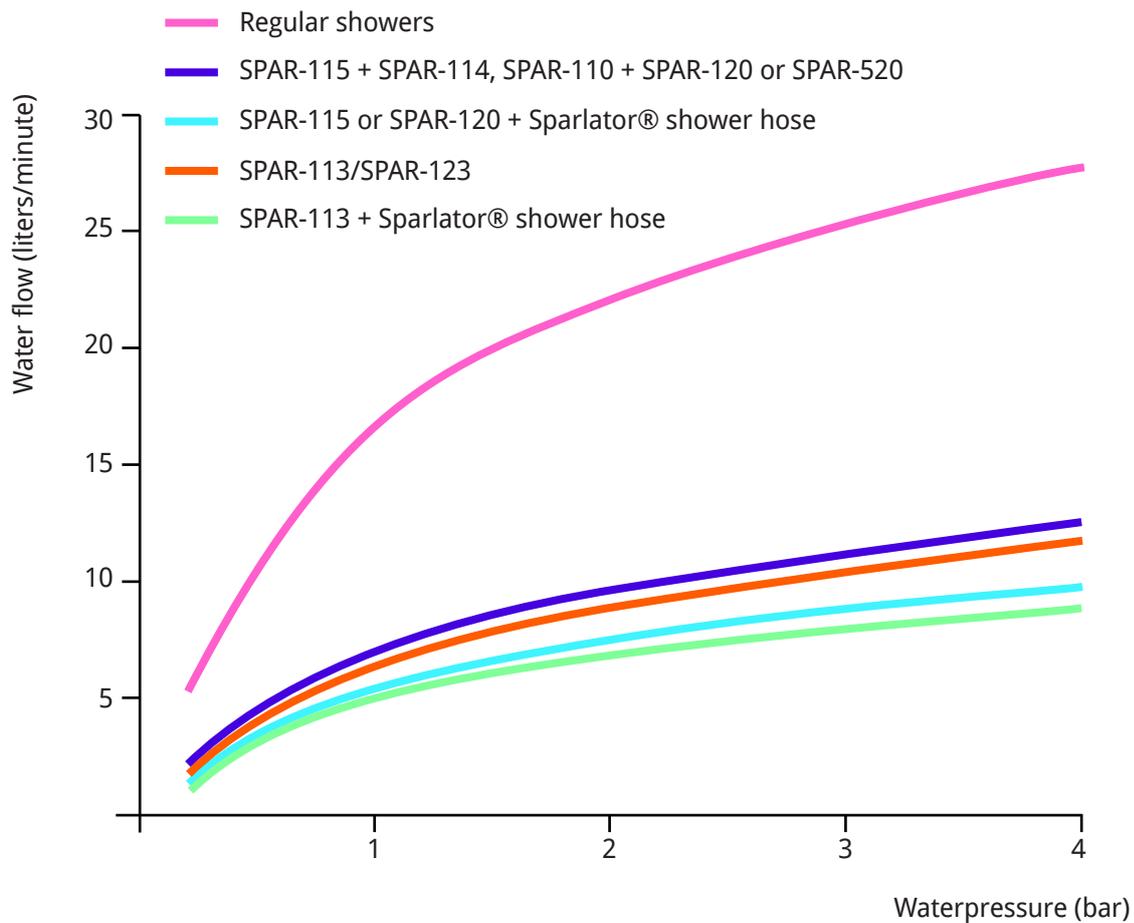
Energy consumption $8 \times 40^* = \text{320 Wh/minute}$

Savings, liters/minute $14 - 8 = \text{6 liters/minute}$

Energy savings at 38°C-40°C $6 \times 40^* = \text{240 Wh/minute}$

*Energy consumption is approximately 40 Wh/liter from 8° C - 40°C





Annual savings with Sparlator® showers

Water savings: $0.006 \times 10 \times 365 \times 17.50 = \text{SEK } 383$

Energy savings: $0 - 24 \times 10 \times 365 \times 0.80 = \text{SEK } 701$

Total savings per year: SEK 1,084

Pay-back time

Time in use 10 minutes/day and place of use **approx. 75 days (sink and washbasin)**

Time in use 10 minutes/day and place of use **approx. 60 days (shower + shower hose)**

