Advantage in water and energy-savings with Swiss Eco Tap

1. Technical requirements for installation

In developped countries the practical pressures are mostly the same and are between 2.5 and 4.5 bar.
Therefore, the following comparison is based on a static pressure of 3.5 bar = flow pressure of 3.0 bar.

2. Technical requirements for the object

We expect a semi-public drinking water supply, like in restaurants, railway-stations, hospitals, etc.
We expect a daily frequence of 1000 people who wash their hands in these institutions.
For a frequency of more or less people this hypothesis can easily be adapted.

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save water, energy & resources

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	Swiss Eco Tap per EN 200 mod.	**standard mixer tap** as per EN 817
3. datas		
water outflow	only cold 10° C	cold 10° C , warm 60° C mixed water temperature positioning in the middle
flow rate for washing hands		
faucet completely open	maximum flow rate 0.65 ltr/min (just cold) only cold water	minimum flow rate approx. 10 to 13.5 ltr/min (according to type) mixed water
reduced for washing hands	no reduction necessary	approx. 6,5 ltr/min normally consumed quantity
duration of washing hands with soap	approx. 30 seconds	approx. 30 seconds
water consumption per person	0.325 ltr cold water at 10°	3,25 ltr mixed water at 39°
please note:		if you wait until the water is really warm, the washing procedure mostly takes twice as long!
4. calculation water consumption		
4.1 per day by 1000 times	325 ltr/day = 0,325 m3/day	3250 ltr/day = 3,25 m3/day
4.2 per year **(365 days)**	**118.63 m3 per year**	**1186.25 m3 per year**

	Swiss Eco Tap per EN 200 mod.	standard mixer tap as per EN 817
5. calculation energy consumption **5.1 per day** **water heating** from 10° C to 39° C		
temperature outflow	10° C	39° C
temperature increase	0° C	29° C
energy consumption per liter of mixed water	no energy consumption	in order to heat 1 liter water by one degree, 4,187 kJoule are necessary. We need 3.25 ltr mixed water and a temperature increase of 29°C, this means: **3.25 x 4.187 x 29 = 394.62 kJ** for each hand washing
for 1000 persons per day	no energy consumption	1000 x 394.62 = 394`620 kJ per day
3600 kJ = 1kWh	no energy consumption	109.62 kWh per day
5.2 per day **(365 days)**	**no energy consumption per year**	**40`011.3 kWh energy per year**