

## Brac Systems Study

September, 2005

Dwelling: Single Family  
# Of Occupants: Two adults, 2 Teenagers  
Test Parameters: Two toilets, one shower, one bathtub  
Toilet size: 3.5 gallon / 13 litre tank

Average daily showers 4  
Average shower volume / *male* 56.25 litres / 14.86 US Gallons  
Average shower volume / *female* 84.38 litres / 22.29US Gallons  
**Average daily shower volume 281.26 litres / 74.31 US Gallons**

Average daily toilet use / *male* 5 flushes  
Average daily toilet use / *female* 6 flushes  
Water usage per toilet flush 13 litres / 3.43 US Gallons  
( low flush toilet ) 6 litres / 1.6 US Gallons  
**Total daily flush volume 286 litres / 75.56 US Gallons**  
(Total daily low flush volume) 132 litres / 35.20 US Gallons

**Allow 25% per occupant.**

**Daily shower volume provides enough water for total daily flush volume.  
Based on these averages, over 100,000 Litres / 26,425 US Gallons would be recycled annually. ( if using low flush toilets, 48,000 litres / 12,850 US Gallons)  
This would completely fill an averaged sized house floor to attic.**

**\*Clothes washer and bathroom lavatories were excluded from this test.**

**Update as of October 18, 2005**

After two full months of having the Brac System installed in my home, the unit is performing flawlessly. The filter bag requires cleaning every two weeks, which is very reasonable and easy. Initially I was concerned with the look of cloudy water in my toilet bowl, but after only two weeks had passed, that concern was no longer an issue knowing how much water is being recycled.

With eighteen years experience in the plumbing industry, and having seen many water saving devices, I strongly believe that this is the system that every water district in every country will want to have.

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