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What about Residential Dual-Flush Toilet Fixtures?

What is a dual-flush toilet fixture? Do dual-flush toilet fixtures actually save water? As more and more toilet manufacturers are offering dual-flush toilets (TODAY: OVER 550 DIFFERENT DUAL-FLUSH MODELS FROM 73 DIFFERENT BRANDS!!), it is important to understand how such designs can provide benefits.

A dual-flush toilet offers 2 options to the user: a flush for liquids only (the 'reduced' flush) and a flush for both solids and liquids (the 'full' flush). Users make the choice as to which button to push or which direction to move the flush lever. Dual-flush toilets were introduced into the North American marketplace in 1967 by a major U.S. manufacturer, so the idea is 45 years old! But, the design concept didn't catch on with consumers and it is reported to have died a swift death (which, as it turned out, was only a 30+ year 'hibernation' instead). Re-introduced here in 1999, dual-flush toilets are apparently now with us to stay.

The question always arises among the water efficiency and building design communities as to how much water is 'saved' over the conventional flush toilet (usually flushing at 1.6 gallons/6.0 litres). Because the selection of the flush volume is strictly a behavioral choice, the few analyses of savings have so far focused largely on the 'ratio' of 'reduced' to 'full' flushes in the real world. Read these analyses and discussions to gain a better understanding:

2010 - Read the summary of an analysis done in 2008 of the various studies conducted over the previous 10 years relating to dual-flush 'ratios'. From **Water Efficiency magazine**

2012 - A discussion of the calculation of the 'effective' flush volume and how the 'ratio' affects that volume. **Download (1 page)**