

Green Team Product Contract

Product Description: A single unit bottle washer and water dispenser

Intended Customer: Fitness center

Market: Commercial bottle washer and water dispenser

User: Water bottle user

Potential Client: Tim Moore, MIT DAPER

Bottle Washer				
Attribute	Metric	Unit	Value	Owner
ease of use	number of steps	unitless	<3	group
interface usability	amount of time for user to insert bottle and begin washing process	sec	<6	HM, JT
interface usability	height of activation switch	ft	4.0-5.0	SH
convenience	amount of time to wash bottle	sec	<15	group
washing capability	temperature of washing water	°F	>168 ^a	group
washing capability	presence of total coliforms on washed bottle	binary	0 ^b	MC, VC
washing capability	presence of visible sediment on washed bottle	binary	0	MC
washing capability	detectable presence of soap in washed bottle	binary	0	group
maintainability	time between replacement of detergent	week	2	WV
efficiency of water use	amount of water required to wash	L	<2	PT
efficiency of detergent use	amount of detergent used per bottle	tsp	<1	PT
bottle compatibility	range of cylindrical bottle diameters	in	2.50-4.25	group
affordability	cost of soap per month	\$	<10	MH

^a 168°F = temperature required to kill bacteria

^b EPA maximum total coliform level

Water Dispenser				
Attribute	Metric	Unit	Value	Owner
ease of use	number of steps to dispense water	unitless	<3	group
water quality	temperature of dispensed water	°F	<65	group
water quality	presence of total coliforms	binary	0	MC
interface usability	time to place bottle and begin dispensing	sec	<3	JT
interface usability	flow rate of dispensed water	mL/sec	>90	CH
interface usability	height of activation switch	ft	4.0 - 5.0	SH
maintainability	time to change water filter	minute	<10	WV
affordability	cost of filter	\$/yr	<180	VK

Entire Unit				
Attribute	Metric	Unit	Value	Owner
maintainability	time to clean chamber and drain of entire unit	minute	<10	WV
maintainability	time between cleaning chambers	week	>2	group
eco-friendliness	energy used for washing and dispensing per cycle	MJ	<4 ^a	GT
location compatibility	depth of machine	in	<18	group
location compatibility	width of machine	in	<20	group
affordability	cost of machine	\$	<1000	VK, MH

^a eco-friendliness - amount of energy to manufacture one PET water bottle