

Water Efficiency Calculator for new dwellings

Home

Calculator

FAQs

Click here for instructions on using the Water Calculator

Water Calculator

WC

Taps (Other)

Taps (Kitchen/Utility)

Baths

Dishwashers

Washing Machines

Showers

H2O softeners

Greywater

Rainwater

Installation Type	Unit of Measure	Capacity/Flow rate (1)	Use Factor (2)	Fixed use (litres/person/day) (3)	Litres/person/day = [(1)X(2)] + (3) (4)
WC (single flush)	Flush Volume (litres)		4.42	0.00	0
WC (dual flush)	Full flush volume (litres)	4.5	1.46	0.00	6.57
	Part flush volume (litres)	2.5	2.96	0.00	7.40
WC (multiple fittings)	Average effective flushing Volume (litres)		4.42	0.00	0
Taps (excluding kitchen/utility room taps)	Flow rate (litres/min)	4.00	1.58	1.58	7.90
Bath (where shower also present)	Capacity to overflow (litres)	155.00	0.11	0.00	17.05
Shower (where bath also present)	Flow Rate (litres / minute)	8.00	4.37	0.00	26.22
Bath Only	Capacity to overflow (litres)		0.35	0.00	0
Shower Only	Flow Rate (litres/minute)	8.00	5.60	0.00	33.60
Kitchen/utility room sink taps	Flow rate (litres/minute)	8.00	0.44	10.36	13.00
Washing Machine	(Litres/kg dry load)	0.00	2.1	0.00	0.00
Dishwasher	(Litres/place setting)	0.73	3.6	0.00	2.63
Waste disposal unit	(Litres/use)	[-] Present	0.08	0.00	0
Water Softener	(Litres/person/day)	0.00	1.00	0.00	0.00
(5)		Total Calculated use (litres/person/day) (Litres column 4)			114.37
(6)		Contribution from greywater (litres/person/day)			0
(7)		Contribution from rainwater (litres/person/day)			0
(8)		Normalisation factor			9.91
(9)		Total internal water consumption = [(5)-(6)-(7)]X(8) (litres/person/day)			104.08
(10)		External water use			5.0
(11)		Total water Consumption (Building Regulation 2.7.4) = (9)+(10) (litres/person/day)			109.1

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Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gebell Duette	13.97
Taps	Hangrohe Tals E	7.90
Baths (shower(s) present)	Hangrohe Tals E	17.05
Showers (bath(s) present)	Hangrohe Tals E	26.22
Showers Only	Hangrohe Showersselect Thermostatic	33.60
Kitchen Taps	Hangrohe Ficus M1	13.00
Dishwasher	Neff N17H1UN0B	2.63
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Water Efficiency Calculator for new dwellings

Home | Calculator | FAQs

Click here for instructions on using the Water Calculator

[Water Calculator](#) | [WC](#) | [Taps \(Other\)](#) | [Taps \(Kitchen/Utility\)](#) | [Baths](#) | [Dishwashers](#) | [Washing Machines](#) | [Showers](#) | [H2O softeners](#) | [Greywater](#) | [Rainwater](#)

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WC Type	Effective Flushing volume* (litres) (a)	Quantity (No.) (b)	Total per Fitting Type = (a)x(b) (c)
Multiple Fittings?	0		
Dual Flush?	0		
	Full Flushing volume x 0.33	Part Flushing volume x 0.67	(a)
1	4.5	2.5	3.16
Total (Sum of all Quantities) (d)		4	12.64
Total (Sum of all totals per fitting type) (e)			12.64
Average effective flushing volume (litres) = (e)/(d)			3.16
Calculate			

Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gabriel Duxix	13.97
Taps	Hansgrohe Tala E	7.90
Baths (shower(s) present)	Hansgrohe Tala E	17.05
Showers (bath(s) present)	Hansgrohe Tala E	26.22
Showers Only	Hansgrohe Showersaia Thermostatic	33.60
Kitchen Taps	Hansgrohe Focus M1	13.00
Dishwasher	Neff S57TH10G0	2.63
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Water Efficiency Calculator for new dwellings

Home | Calculator | FAQs

Click here for instructions on using the Water Calculator

[Water Calculator](#) | [WC](#) | [Taps \(Other\)](#) | [Taps \(Kitchen/Utility\)](#) | [Baths](#) | [Dishwashers](#) | [Washing Machines](#) | [Showers](#) | [H2O softeners](#) | [Greywater](#) | [Rainwater](#)

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Tap Fitting Type	Flow rate (litres/min) (a)	Quantity (No.) (b)	Total per Fitting Type = (a) x (b) (c)
1	4	7	28.00
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		7	
Total (Sum of all totals per fitting type) (e)			28.00
Average flow rate (litres/min) = [(e)/(d)]			4.00
Maximum flow rate (litres/min) (f)			4.00
Weighted Average flow rate (litres/min) = [(f)x0.7]			2.80
Calculate			

Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gabell DuoLife	13.97
Taps	Hansgrohe Tala E	7.90
Baths (shower(s) present)	Hansgrohe Tala E	17.05
Showers (bath(s) present)	Hansgrohe Tala E	26.22
Showers Only	Hansgrohe Showersetselect Thermostatic	33.60
Kitchen Taps	Hansgrohe Focus M41	13.00
Dishwasher	Neff N17RH10NOB	2.63
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Water Efficiency Calculator for new dwellings

Home | Calculator | FAQs

Click here for instructions on using the Water Calculator

[Water Calculator](#) | [WC](#) | [Taps \(Other\)](#) | [Taps \(Kitchen/Utility\)](#) | [Baths](#) | [Dishwashers](#) | [Washing Machines](#) | [Showers](#) | [H2O softeners](#) | [Greywater](#) | [Rainwater](#)

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Tap Fitting Type	Flow rate (litres/min) (a)	Quantity (No.) (b)	Total per Fitting Type = (a) x (b) (c)
1	6	2	12.00
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		2	
Total (Sum of all totals per fitting type) (e)			12.00
Average flow rate (litres/min) = [(e)/(d)]			6.00
Maximum flow rate (litres/min) (f)			6.00
Weighted Average flow rate (litres/min) = [(f)x0.7]			4.20
Calculate			

Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gabell DuoLife	13.97
Taps	Hansgrohe Tala E	7.90
Baths (shower(s) present)	Hansgrohe Tala E	17.05
Showers (bath(s) present)	Hansgrohe Tala E	26.22
Showers Only	Hansgrohe Showersellect Thermostatic	33.60
Kitchen Taps	Hansgrohe Focus M41	13.00
Dishwasher	Neff N17H11NOB	2.63
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 [Click here for instructions on entering data on baths](#)

[Water Calculator](#) [WC](#) [Taps \(Other\)](#) [Taps \(Kitchen/Utility\)](#) [Baths](#) [Dishwashers](#) [Washing Machines](#) [Showers](#) [H2O softeners](#) [Greywater](#) [Rainwater](#)

Bath Fitting Type	Capacity to overflow(litres) (a)	Quantity (No.) (b)	Total per Fitting Type =(a)*(b) (c)
Are there any showers present?	☐		
1	155	1	155.00
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		1	
Total (Sum of all totals per fitting type) (e)			
Average capacity to overflow(litres) = ((e)/(d))			155.00
Maximum Capacity to overflow (litres) (f)			155.00
Required Average capacity to overflow(litres) = ((f)/0.7)			108.50
Calculate			

Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gebell Doulfe	13.97
Taps	Hansgrohe Tala E	7.90
Baths (shower(s) present)	Hansgrohe Tala E	17.05
Showers (bath(s) present)	Hansgrohe Tala E	26.22
Showers Only	Hansgrohe Showerselect Thermostatic	13.60
Kitchen Taps	Hansgrohe Focus M81	13.00
Dishwasher	Neff N17H11N1OB	2.63
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Water Efficiency Calculator for new dwellings

Home | Calculator | FAQs

Click here for instructions on using the Water Calculator

[Water Calculator](#) | [WC](#) | [Taps \(Other\)](#) | [Taps \(Kitchen/Utility\)](#) | [Baths](#) | [Dishwashers](#) | [Washing Machines](#) | [Showers](#) | [H2O softeners](#) | [Greywater](#) | [Rainwater](#)

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Type of Dishwasher	Litres per place setting (a)	Quantity (No.) (b)	Total per Fitting Type = (a) x (b) (c)
1	0.73	1	0.73
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		1	
Total (Sum of all totals per fitting type) (e)			0.73
Average litres per place setting = (e)/(d)			0.73
Maximum litres per place setting (f)			0.73
Weighted Average litres per place setting = (f)x0.7			0.51
Calculate			

Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gabell DuoLife	13.97
Taps	Hansgrohe Tala E	7.90
Baths (shower(s) present)	Hansgrohe Tala E	17.05
Showers (bath(s) present)	Hansgrohe Tala E	26.22
Showers Only	Hansgrohe Showersselect Thermostatic	33.60
Kitchen Taps	Hansgrohe Focus M41	13.00
Dishwasher	Neff N17H110NOB	2.63
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Water Efficiency Calculator for new dwellings

Home | Calculator | FAQs

Click here for instructions on using the Water Calculator

[Water Calculator](#) | [WC](#) | [Taps \(Other\)](#) | [Taps \(Kitchen/Utility\)](#) | [Baths](#) | [Dishwashers](#) | [Washing Machines](#) | [Showers](#) | [H2O softeners](#) | [Greywater](#) | [Rainwater](#)

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Type of washing machine	Litres per kilogram of dry load (a)	Quantity (No.) (b)	Total per Fitting Type =(a)x(b) (c)
1	0	1	0.00
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		1	
Total (Sum of all totals per fitting type) (e)			0.00
Average litres per kilogram of dry load = [(e)/(d)]			0.00
Maximum litres per kilogram of dry load (f)			0.00
Weighted Average litres per kilogram of dry load = [(f)x0.7]			0.00
Calculate			

Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gabell DuoLife	13.97
Taps	Hansgrohe Tala E	7.90
Baths (shower(s) present)	Hansgrohe Tala E	17.05
Showers (bath(s) present)	Hansgrohe Tala E	26.22
Showers Only	Hansgrohe Showersselect Thermostatic	33.60
Kitchen Taps	Hansgrohe Focus M41	13.00
Dishwasher	Neff N17H110NOB	2.43
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Water Efficiency Calculator for new dwellings

[Home](#) | [Calculator](#) | [FAQs](#)

Click here for instructions on using the Water Calculator

[Water Calculator](#) | [WC](#) | [Taps \(Other\)](#) | [Taps \(Kitchen/Utility\)](#) | [Baths](#) | [Dishwashers](#) | [Washing Machines](#) | [Showers](#) | [H2O softeners](#) | [Greywater](#) | [Rainwater](#)

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Shower fitting Type	Flow rate (litres/min) (a)	Quantity (No.) (b)	Total per Fitting Type =(a)x(b) (c)
Are there any Baths Present?	0	3	18.00
1			
2			
3			
4			
5			
6			
Total (Sum of all Quantities) (d)		3	
Total (Sum of all totals per fitting type) (e)			18.00
Average flow rate (litres/min) = (c)/(d)			6.00
Maximum flow rate (litres/min) (f)			6.00
Weighted Average flow rate (litres/min) = (f)x0.7			4.20
Calculate			

Installation Type	Make/Model (* mandatory)	Litres/Person/Day
WC (dual flush)	Gabbert DuoLife	13.93
Taps	Hansgrohe Tails E	7.90
Baths (shower(s) present)	Hansgrohe Tails E	17.05
Showers (bath(s) present)	Hansgrohe Tails E	26.22
Showers Only	Hansgrohe Showerselect Thermostatic	23.66
Kitchen Taps	Hansgrohe Focus M41	13.00
Dishwasher	Neff N17H10N0B	2.63
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[System Requirements](#)

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https://wrcpartcalculator.co.uk/Calculator.aspx

Water Efficiency Calculator for new dwellings

[Home](#) | [Calculator](#) | [FAQs](#)

Click here for instructions on using the Water Calculator

[Water Calculator](#) | [WC](#) | [Taps \(Other\)](#) | [Taps \(Kitchen/Utility\)](#) | [Baths](#) | [Dishwashers](#) | [Washing Machines](#) | [Showers](#) | [H2O softeners](#) | [Greywater](#) | [Rainwater](#)

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Water softener consumption calculation for New Dwellings

Total Capacity used per regeneration (%)	(a)	4
Water Consumed per regeneration (litres)	(b)	62
Average number of regeneration cycles per day (No.)	(c)	1
Number of occupants served by the system (No.)	(d)	6
Water consumed beyond 4% (litres/day) [(a)(b)(c)]	(e)	0.00
Water consumed beyond 4% (litres/person/day) [(e)/(d)]	(f)	0.00
Calculate		

Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gabell DuoLife	13.97
Taps	Hansgrohe Talle E	7.90
Baths (shower(s) present)	Hansgrohe Talle E	17.05
Showers (bath(s) present)	Hansgrohe Talle E	26.22
Showers Only	Hansgrohe Showerset Select Thermostatic	33.60
Kitchen Taps	Hansgrohe Focus M41	12.00
Dishwasher	Neff N17H1H10NOB	2.43
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Water Calculator WC Taps (Other) Taps (Kitchen/Utility) Baths Dishwashers Washing Machines Showers H2O softeners **Greywater** Rainwater

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The greywater collection calculation for New Dwellings					
Bath, shower and wash hand basin usage (litres/person/day)	Percentage of used water (a) to be recycled (%)	Greywater available for use (litres/person/day) $(c) = (a) \times (b) / 100$	Greywater demand (litres/person/day)	Greywater savings (litres/person/day) Where (c) is greater than (d), (e) = (d), otherwise (e) = (c)	
(a)	(b)	(c)	(d)	(e)	
0	0	0.00	0	0	

Demand calculation

For any appliance (WC, or washing machine) where grey water is to be used for supply to all of the appliances of that type within the property, the volume of water for grey water demand can be taken directly from the relevant appliance row. For any appliance (WC, or washing machine) where grey water is to be supplied to only a proportion of the appliances of that type within a property, the volume of water for grey water demand should be calculated according to an alternative methodology. This can be found in Appendix A16 of Part 6 of the Building Regulations 2010 ([available here](#)) and allows calculation of the water demand from only the appliances where grey water is to be used. The total volume of grey water demand calculated in accordance with either of the above methodologies (as appropriate) should be summed for WCs and/or washing machines and entered into Column (d).

Supply calculation

For any appliance (tap, shower or bath) where grey water is being collected from all of that appliance within the property, the volume of water for grey water supply can be taken from the relevant appliance row. For any appliance (tap, shower or bath) where grey water is being collected from only a proportion of the appliances within the property, an alternative methodology must be used. This can be found in Appendix A18 of Part G of the Building Regulations 2010 ([available here](#)) and allows calculation of the water use for only the appliances where water is being collected. The total volume of water available for grey water supply calculated in accordance with either of the above methodologies (as appropriate) should be summed for taps, baths and showers and entered into Column (a).

Savings calculation

The percentage of grey water collected to be recycled should be based upon manufacturers or system designer details of the system specified and be entered into Column (b). Where the grey water available for use is of greater volume than the grey water demand, the savings (litres / person / day) will be equal to the volume of grey water demand. Where the grey water demand is of greater volume than the grey water available for use, the savings (litres / person / day) will be equal to the volume of grey water use. This will be populated in Column (e), and this value transferred through to the relevant row.

Installation Type	Make / Model (*mandatory)	Litres / Person / Day
WC (dual flush)	Gebell DuoE	13.97
Toilets	Hansgrohe Tala E	7.90
Baths (shower(s) present)	Hansgrohe Tala E	17.05
Showers (bath(s) present)	Hansgrohe Tala E	26.22
Showers Only	Hansgrohe Showerset Select Thermostatic	33.60
Kitchen Taps	Hansgrohe Focus M41	13.50
Sinkwasher	Sud n' Hot INNOB	2.63
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[System Requirements](#)

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Water Efficiency Calculator for new dwellings

[Home](#) | [Calculator](#) | [FAQs](#)

Click here for instructions on using the Water Calculator

[Water Calculator](#) | [WC](#) | [Taps \(Other\)](#) | [Taps \(Kitchen/Utility\)](#) | [Baths](#) | [Dishwashers](#) | [Washing Machines](#) | [Showers](#) | [H2O softeners](#) | [Greywater](#) | [Rainwater](#)

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The rainwater collection calculation for New Dwellings

Rainwater Collected	(a)	0
Rainwater demand	(b)	0
Rainwater savings* (c)=(a)/(b)*(b)=	(c)	0
Calculate		

Rainwater collection

The water efficiency calculator for new dwellings methodology document available in Appendix A of The Building Regulations 2010 Part G ([here](#)) allows calculation of rainwater collection volume according to two methodologies, both of which are based upon BS5515:2009. These are outlined in Section A21 of the methodology document. The daily rainwater per person (litres) figure calculated by either method should be entered into row (a).

Rainwater demand

For any appliance (WC, or washing machine) where rainwater is to be used for supply to all of the appliances of that type within the property, the volume of water for rainwater demand can be taken directly from the relevant appliance row in Column (4). For any appliance (WC, or washing machine) where rainwater is to be supplied to only a proportion of the appliances of that type within a property, the volume of water for rainwater demand should be calculated according to an alternative methodology. This can be found in Section A26 of the water efficiency calculator for new dwellings methodology document ([available here](#)) and allows calculation of the water demand from only the appliances where rainwater is to be used. The total volume of rainwater demand calculated in accordance with either of the above methodologies (as appropriate) should be summed for WCs and/or washing machines and entered into Row (b).

Installation Type	Make/Model (*mandatory)	Litres/Person/Day
WC (dual flush)	Gabriel Duxis	13.97
Taps	Hansgrohe Tala E	7.90
Baths (shower/s) present	Hansgrohe Tala F	17.55
Showers (bath/s) present	Hansgrohe Tala E	26.22
Showers Only	Hansgrohe Showerselect Thermostatic	33.60
Kitchen Taps	Hansgrohe Focus M41	13.00
Dishwasher	Nuff 151TH11NG0	2.83
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