



MIXING VALVE CALCULATOR – REDUCING DHW TEMPERATURE FROM 60 oC to 40 oC FOR SHOWERS AND BASINS

The designs shown below take into account a DHW flow temperature of 60 oC from a Plate Heat Exchanger blended through a mixing valve with mains cold water at 10 oC to arrive at a blended or mixed temperature of 40 oC at the outlet of a shower or tap.

The temperature on each DHW circuit outlet can be adjusted at the mixing valve by altering the percentage of hot and cold water mixed to suit whatever is required at each appliance on site.

Each AEL domestic hot water Plate Heat Exchanger whether it is an AELTHERM Packaged unit [LINK](#) , Brazed Plate or Plate and Gasket type heat exchanger each can be made to suit the temperature you require but most DHW systems are designed to supply water at 60 oC to avoid the growth of legionella [LINK](#) .

The designs shown below are based on a flow rate of 60% of DHW from a Packaged Plate Heat Exchanger at 60 oC being mixed with 40% of mains cold water at 10 Oc giving an outlet temperature of 40 oC.

AELTHERM MODEL DHW FLOW RATE @60 Oc MAINS COLD WATER FLOW RATE @ 10 Oc. MIXED OUTLET FLOW AT 40 oC

DHW020510 - 25.2KW	0.12 L/S	0.08 L/S	0.20 L/S
DHW025510 - 31.5 KW	0.15 L/S	0.10 L/S	0.25 L/S
DHW035510 - 44.1 KW	0.21 L/S	0.14 L/S	0.35 L/S
DHW045510 - 56.7 KW	0.27 L/S	0.18 L/S	0.45 L/S
DHW055510 - 69.3 KW	0.33 L/S	0.22 L/S	0.55 L/S
DHW060510 - 75.6 KW	0.36 L/S	0.24 L/S	0.60 L/S
DHW065510 - 81.9 KW	0.39 L/S	0.26 L/S	0.65 L/S
DHW075510 - 94.5 KW	0.45 L/S	0.30 L/S	0.75 L/S
DHW085510 - 107 KW	0.51 L/S	0.34 L/S	0.85 L/S
DHW100510 - 123.9 KW	0.59 L/S	0.39 L/S	0.98 L/S
DHW120510 - 149.1 KW	0.71 L/S	0.47 L/S	1.18 L/S
DHW150510 - 186.9 KW	0.90 L/S	0.60 L/S	1.50 L/S
DHW180510 - 224.7 KW	1.08 L/S	0.72 L/S	1.80 L/S
DHW210510 - 262.5 KW	1.26 L/S	0.84 L/S	2.10 L/S
DHW2401410 - 300.3 KW	1.45 L/S	0.96 L/S	2.36 L/S
DHW2701410 - 338.1 KW	1.62 L/S	1.08 L/S	2.70 L/S
DHW3001410 - 375.9 KW	1.81 L/S	1.20 L/S	3.01 L/S
DHW3301410 - 413.7 KW	1.97 L/S	1.31 L/S	3.28 L/S
DHW3501410 - 438.9 KW	2.09 L/S	1.39 L/S	3.48 L/S
DHW3801410 - 474.6 KW	2.28 L/S	1.52 L/S	3.80 L/S
DHW4101410 - 512.4 KW	2.47 L/S	1.64 L/S	4.11 L/S
DHW4401410 - 550.2 KW	2.65 L/S	1.77 L/S	4.42 L/S
DHW4701410 - 588.0 KW	2.83 L/S	1.88 L/S	4.71 L/S
DHW5001410 - 625.8 KW	3.01 L/S	2.00 L/S	5.01 L/S
DHW5301410 - 663.6 KW	3.19 L/S	2.12 L/S	5.31 L/S
DHW5601410 - 701.4 KW	3.38 L/S	2.25 L/S	5.63 L/S
DHW6001410 - 751.8 KW	3.60 L/S	2.40 L/S	6.00 L/S
DHW6301410 - 789.6 KW	3.80 L/S	2.53 L/S	6.33 L/S
DHW6601410 - 827.4 KW	3.98 L/S	2.65 L/S	6.63 L/S
DHW7001410 - 877.8 KW	4.23 L/S	2.84 L/S	7.07 L/S

Domestic Hot Water (DHW) Plate Heat Exchangers can be supplied as a Plate / Gasket unit or supplied as a Brazed Plate unit [LINK](#)