

QualiCell: Specification

Model: QualiCell-M1

Material: Copper Cell + Bronze channels

Coolant entrance (exit) cross-section area: 0.75 cm^2

Head pipe diameter: 0.6 cm

Dimensions (L x W x H): 10x5x4 cm

Weight: 145 g

Bolt-through standard Mounting Kit (clips w/bolts, fastener)

Active cooling area: 25 cm^2

Mirror-finished base

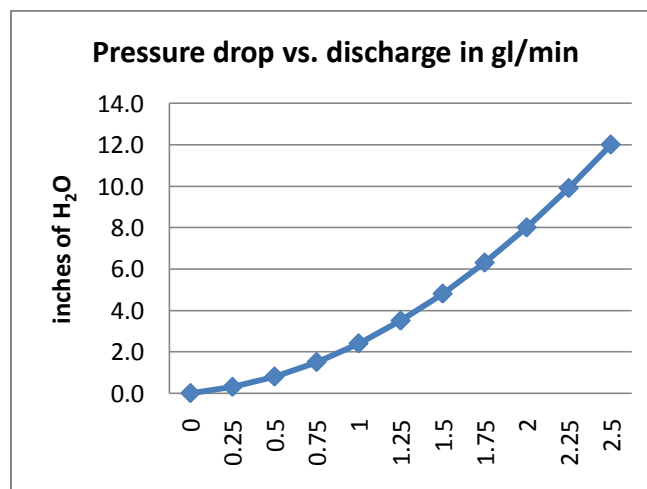
Thermal resistance: $0.02 - 0.05 \text{ }^\circ\text{C/W}$

Relaxation time: 0.95 min

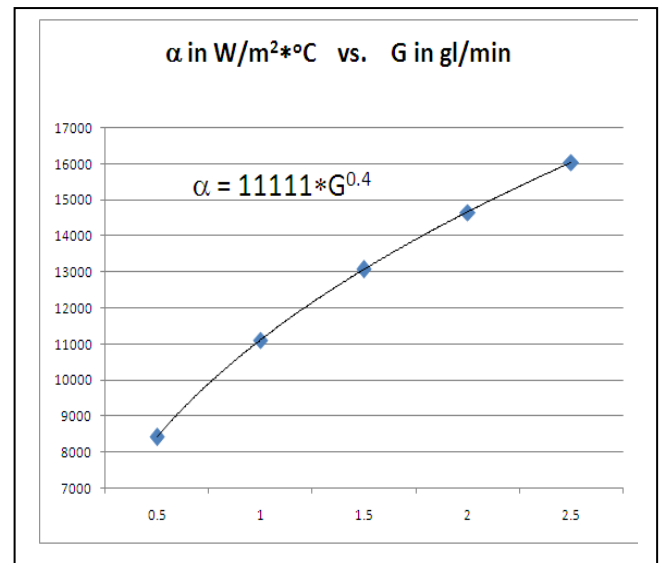
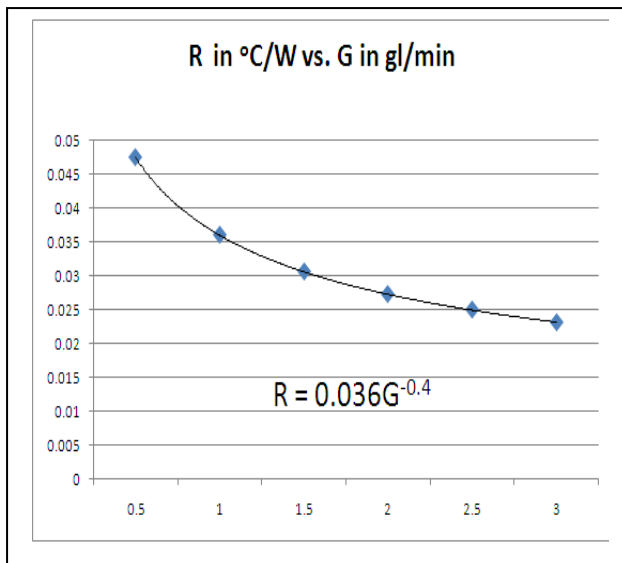
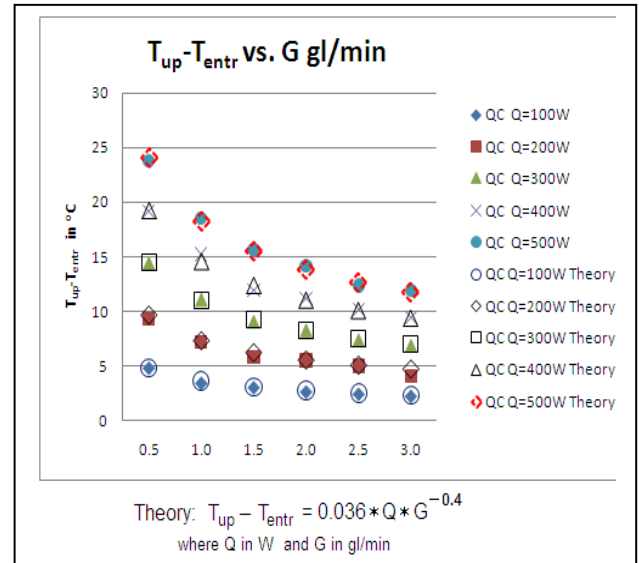
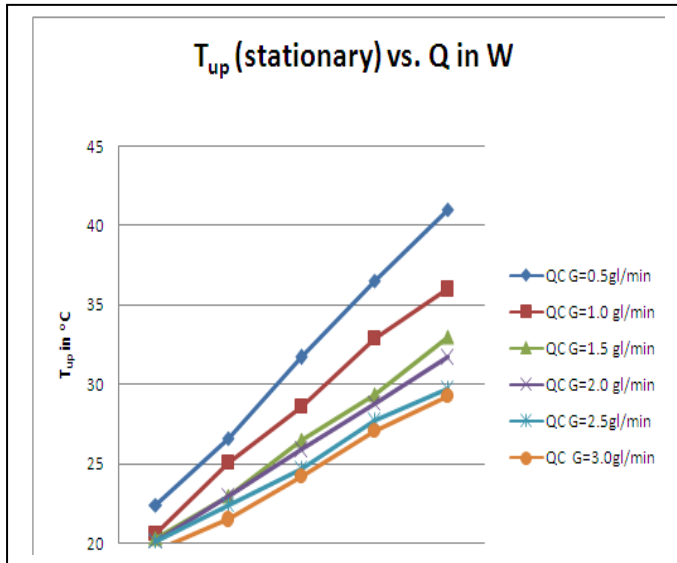


Performance

Pressure drop

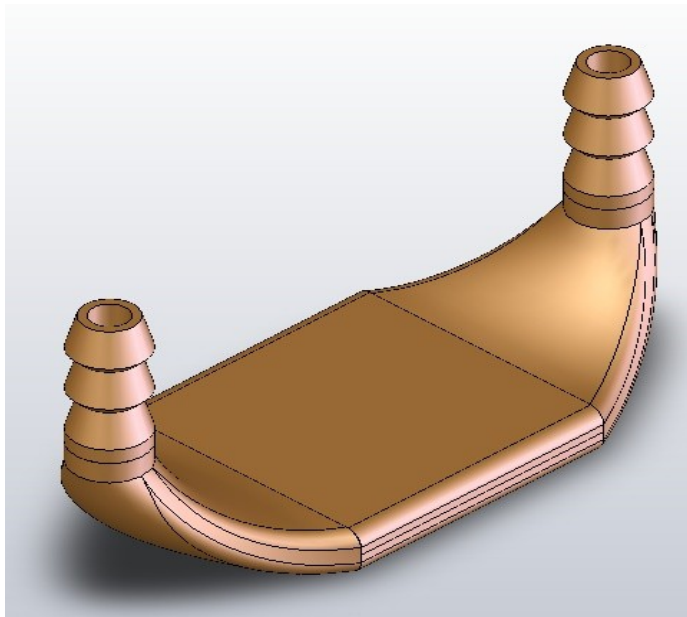


Cooling effect



The evolution of Thermal Plate's temperature (T_{up} in °C), which is initially (at temperature T_{entr}) in the thermal equilibrium with water in the attached water cooling block *QualiCell*, with time t (in min) after turning on of heat generation with power Q as function of water discharge G (in gl/min) through water block:

$$T_{up}(t) = 0.0365Q [1 - e^{-\frac{t}{0.95}}]G^{-0.4} + T_{entr}$$

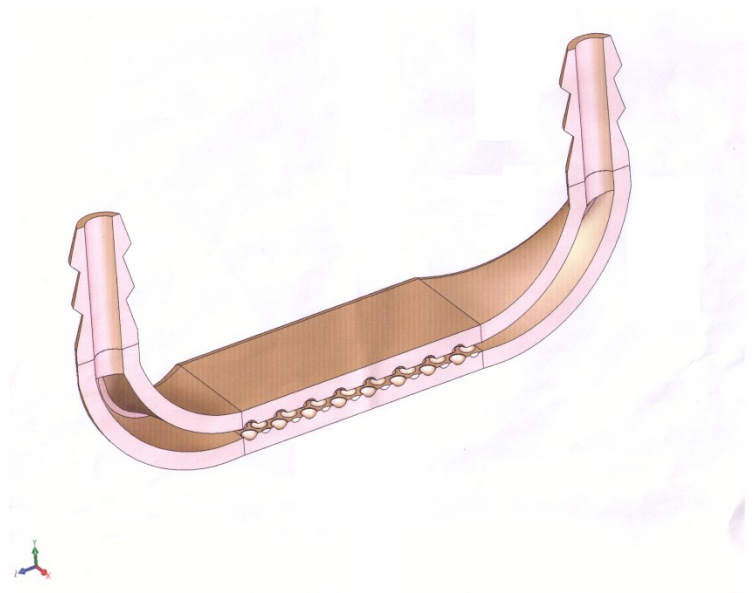


Next step – Duo-parts QualiCell Unit:

According to this technology *QualiCell* should be made of two complementary parts, which can be stamped or melted as one piece.

(All black lines on picture are some residuals of drawing and have no meaning)

The Middle cross-section of Duo-parts QualiCell.



Next step – Flat QualiCell Unit.

According this technology *QualiCell* should be made of two identical parts, which can be stamped or melted as one piece.

