D6 INDUSTRIES
STANDARD PRODUCT
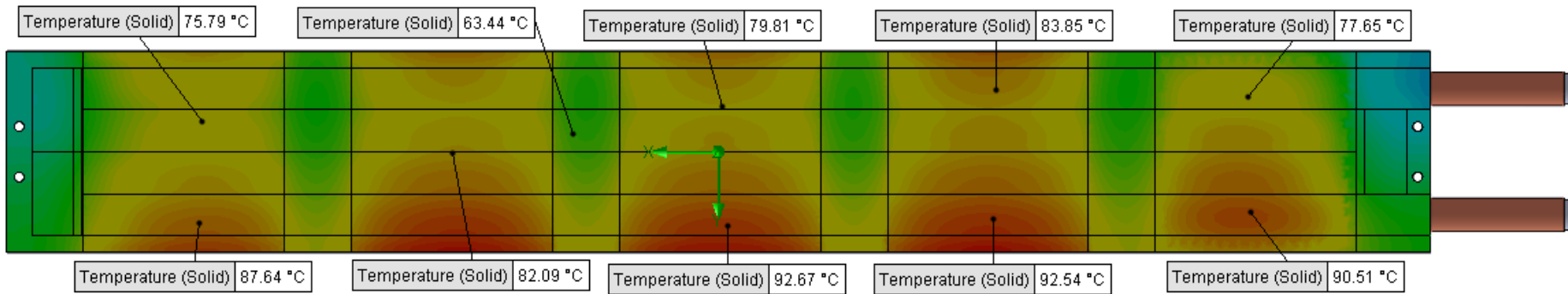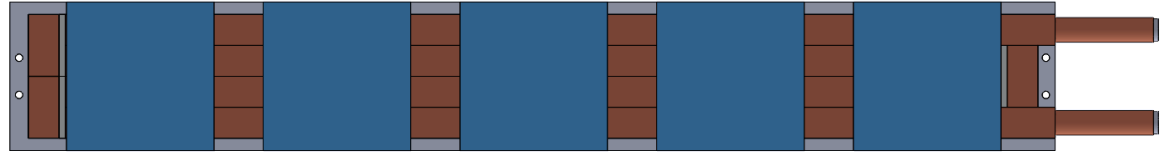# HT-TAP2000-5
SIMULATION RESULTS

1-3 gpm flow rates
5X 2000W Heat Load

D6 STANDARD HT-TAP2000-5

PARAMETERS
Fluid: Water
Inlet Flow: 1 gpm
Inlet Fluid Temp: 20°C
Heat Source: 5 blue squares=10,000W
Tube: ½ OD round copper inlet/outlet

Temperature (Solid) 75.79 °C
Temperature (Solid) 63.44 °C
Temperature (Solid) 79.81 °C
Temperature (Solid) 83.85 °C
Temperature (Solid) 77.65 °C

Temperature (Solid) 87.64 °C
Temperature (Solid) 82.09 °C
Temperature (Solid) 92.67 °C
Temperature (Solid) 92.54 °C
Temperature (Solid) 90.51 °C

Simulation Data

Goal Name	Unit	Value
SG Min Temperature (Solid) 1	[°C]	33.70302295
SG Av Temperature (Solid) 1	[°C]	75.03252882
SG Max Temperature (Solid) 1	[°C]	97.25232579
FLUID OUT	[°C]	57.71020408
PRESSURE DROP	[lbf/in^2]	1.456701489

SG-Surface goal is a parameter on selected surface(s).
In this case, it is the entire tube side surface area.

RESULTS
Thermal Resistance: 0.0055°C/W
Pressure Drop: 1.45psi
Min Surface Temp: 33.70°C
Max Surface Temp: 97.25°C
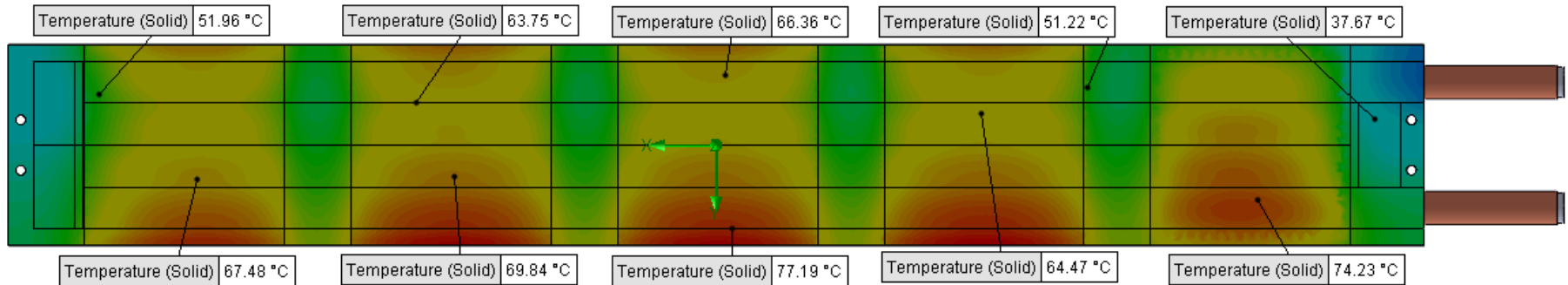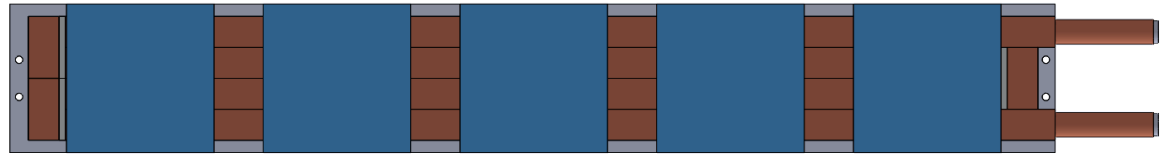Water Temp Out: 57.71°C

D6 STANDARD HT-TAP2000-5

PARAMETERS
Fluid: Water
Inlet Flow: 1.5 gpm
Inlet Fluid Temp: 20°C
Heat Source: 5 blue squares=10,000W
Tube: ½ OD round copper inlet/outlet

Temperature (Solid) 51.96 °C
Temperature (Solid) 63.75 °C
Temperature (Solid) 66.36 °C
Temperature (Solid) 51.22 °C
Temperature (Solid) 37.67 °C
Temperature (Solid) 67.48 °C
Temperature (Solid) 69.84 °C
Temperature (Solid) 77.19 °C
Temperature (Solid) 64.47 °C
Temperature (Solid) 74.23 °C

Simulation Data

Goal Name	Unit	Value
SG Min Temperature (Solid) 1	[°C]	28.37876332
SG Av Temperature (Solid) 1	[°C]	60.5654523
SG Max Temperature (Solid) 1	[°C]	80.19506234
FLUID OUT	[°C]	45.19563038
PRESSURE DROP	[lbf/in^2]	3.244341748

SG-Surface goal is a parameter on selected surface(s).
In this case, it is the entire tube side surface area.

RESULTS
Thermal Resistance: 0.0040°C/W
Pressure Drop: 3.24psi
Min Surface Temp: 28.37°C
Max Surface Temp: 80.19°C
Water Temp Out: 45.19°C
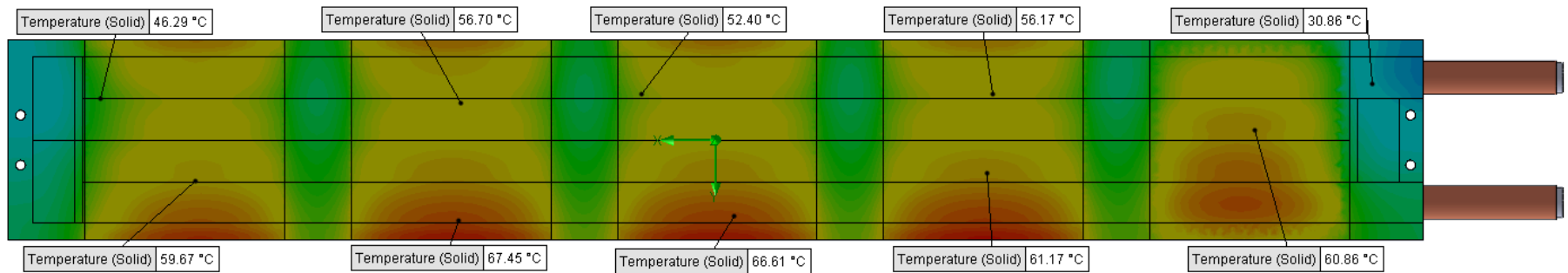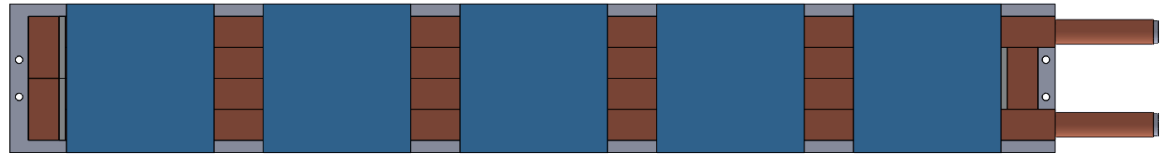
D6 STANDARD HT-TAP2000-5

PARAMETERS
Fluid: Water
Inlet Flow: 2 gpm
Inlet Fluid Temp: 20°C
Heat Source: 5 blue squares=10,000W
Tube: ½ OD round copper inlet/outlet

Temperature (Solid) 46.29 °C
Temperature (Solid) 56.70 °C
Temperature (Solid) 52.40 °C
Temperature (Solid) 56.17 °C
Temperature (Solid) 30.86 °C
Temperature (Solid) 59.67 °C
Temperature (Solid) 67.45 °C
Temperature (Solid) 66.61 °C
Temperature (Solid) 61.17 °C
Temperature (Solid) 60.86 °C

Simulation Data

Goal Name	Unit	Value
SG Min Temperature (Solid) 1	[°C]	25.83370372
SG Av Temperature (Solid) 1	[°C]	53.11368911
SG Max Temperature (Solid) 1	[°C]	70.91716367
FLUID OUT	[°C]	38.91810883
PRESSURE DROP	[lbf/in^2]	5.728868436

SG-Surface goal is a parameter on selected surface(s).
In this case, it is the entire tube side surface area.

RESULTS
Thermal Resistance: 0.0033°C/W
Pressure Drop: 5.72psi
Min Surface Temp: 25.83°C
Max Surface Temp: 70.91°C
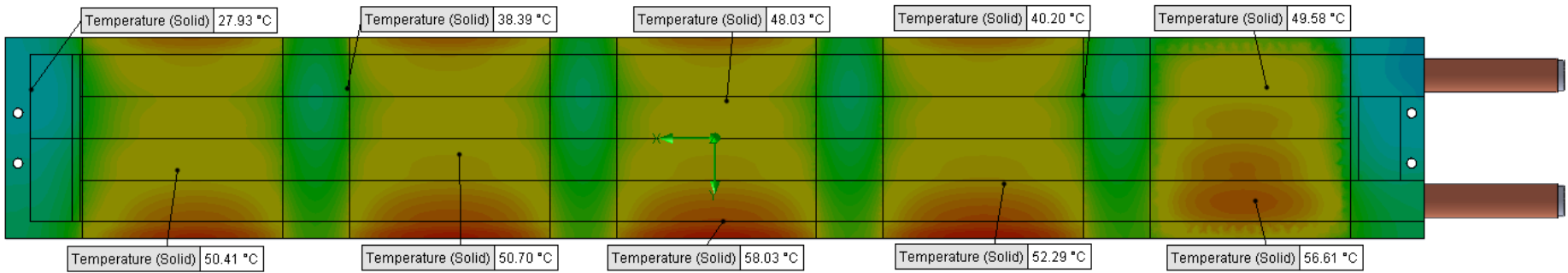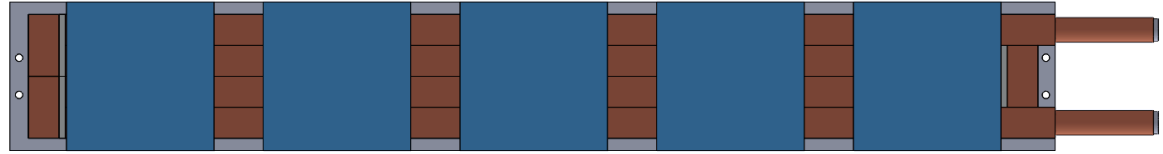Water Temp Out: 38.91°C

Rev A

D6 STANDARD HT-TAP2000-5

PARAMETERS
Fluid: Water
Inlet Flow: 3 gpm
Inlet Fluid Temp: 20°C
Heat Source: 5 blue squares=10,000W
Tube: ½ OD round copper inlet/outlet

Temperature (Solid)	27.93 °C
Temperature (Solid)	38.39 °C
Temperature (Solid)	48.03 °C
Temperature (Solid)	40.20 °C
Temperature (Solid)	49.58 °C
Temperature (Solid)	50.41 °C
Temperature (Solid)	50.70 °C
Temperature (Solid)	58.03 °C
Temperature (Solid)	52.29 °C
Temperature (Solid)	56.61 °C

Simulation Data

Goal Name	Unit	Value
SG Min Temperature (Solid) 1	[°C]	23.24818217
SG Av Temperature (Solid) 1	[°C]	45.21080187
SG Max Temperature (Solid) 1	[°C]	60.88744575
FLUID OUT	[°C]	32.63622941
PRESSURE DROP	[lbf/in^2]	12.82556299

SG-Surface goal is a parameter on selected surface(s).
In this case, it is the entire tube side surface area.

RESULTS
Thermal Resistance: 0.0025°C/W
Pressure Drop: 12.82psi
Min Surface Temp: 23.24°C
Max Surface Temp: 60.88°C
Water Temp Out: 32.63°C