Core Materials and Design

Thermal Conductivity

BTU/(HR*Deg F*Ft.) @ 68F

Silvar

Silver 235

Copper 223

Lopper 223

Aluminum 118

Arace (70/20)

2race (70/20)

Brass (70/30) 64

Sleel (Low Carbon) 31

Solder (lead/tin) 20 - 37

Block of Copper Will Conduct 223btu/hr

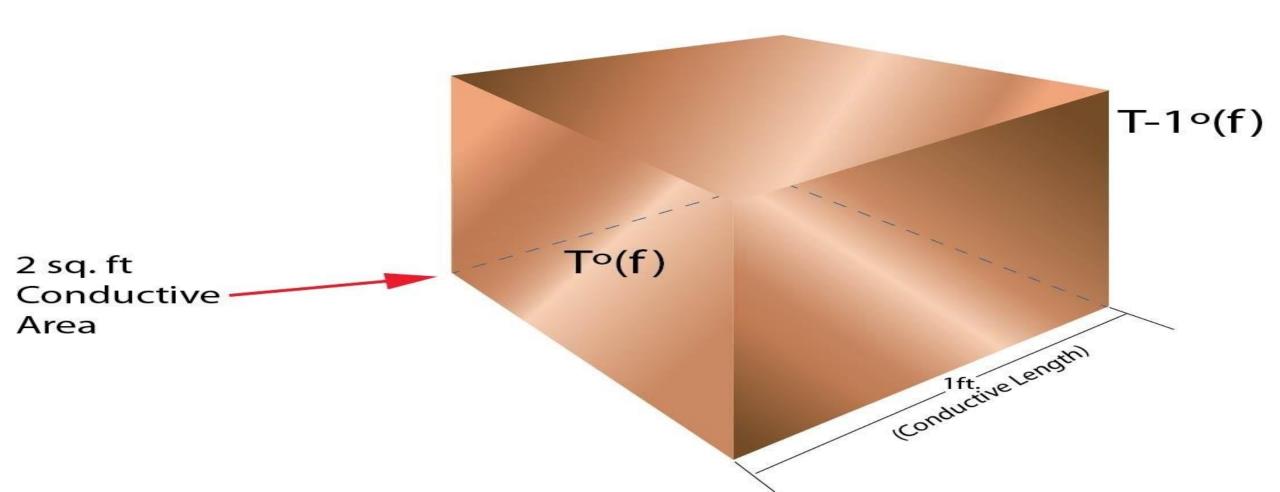
BTU/(HR of ft) T-1°(f) 1ft. 1Ft^2 Conductive Area To(f) 1ft. Length 1ft. $(1ft \times 1ft=1ft^2)$

Block of Copper Will Conduct 111.5 BTU/Hr

1 ft^2 Conductive Area T-1°(f) Conductive Length)

A Block of Copper as Described Would Conduct 446 BTU/Hr

While a Block of Aluminum as Described Would Conduct 236 BTU/Hr



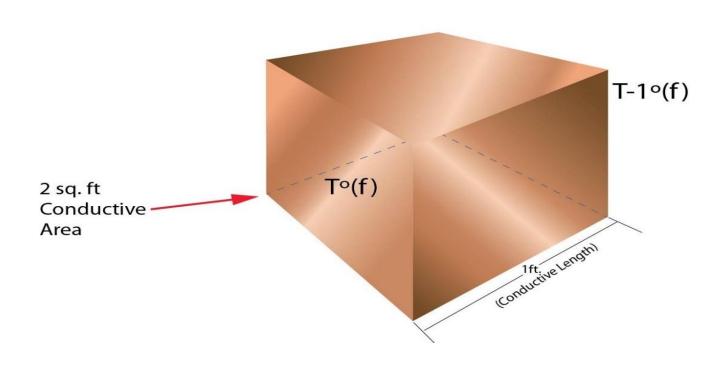
Effect of doubling the area we conduct through (conductive area)

Block of Copper Will Conduct 223btu/hr

BTU/(HR of ft) T-10(f) 1Ft^2 Conductive Area To(f) 1ft., e length)
Conductive length) $(1ft \times 1ft=1ft^2)$

A Block of Copper as Described Would Conduct 446 BTU/Hr

While a Block of Aluminum as Described Would Conduct 236 BTU/Hr



Heat Flow Path in a Radiator Tube Fin

Thermal Conductivity

BTU/(HR*Deg F*Ft.) @ 68F

Silvar

Silver 235

Copper 223

Lopper 223

Aluminum 118

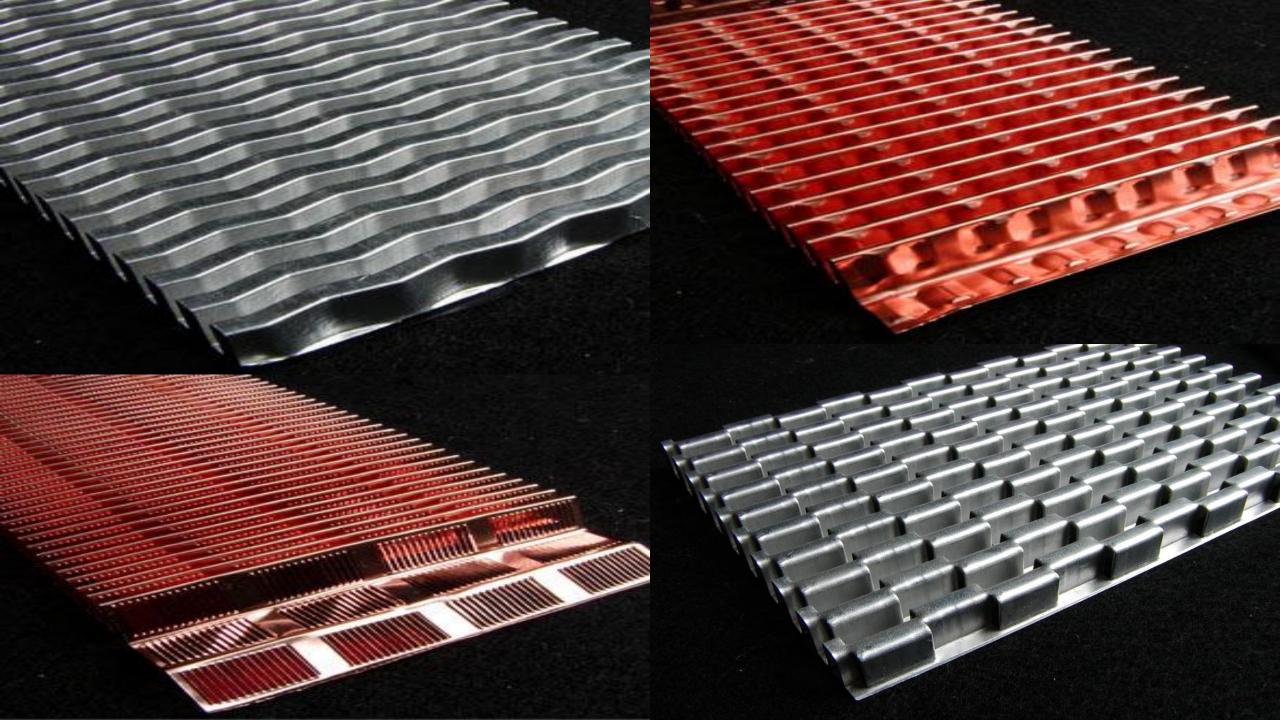
Arace (70/20)

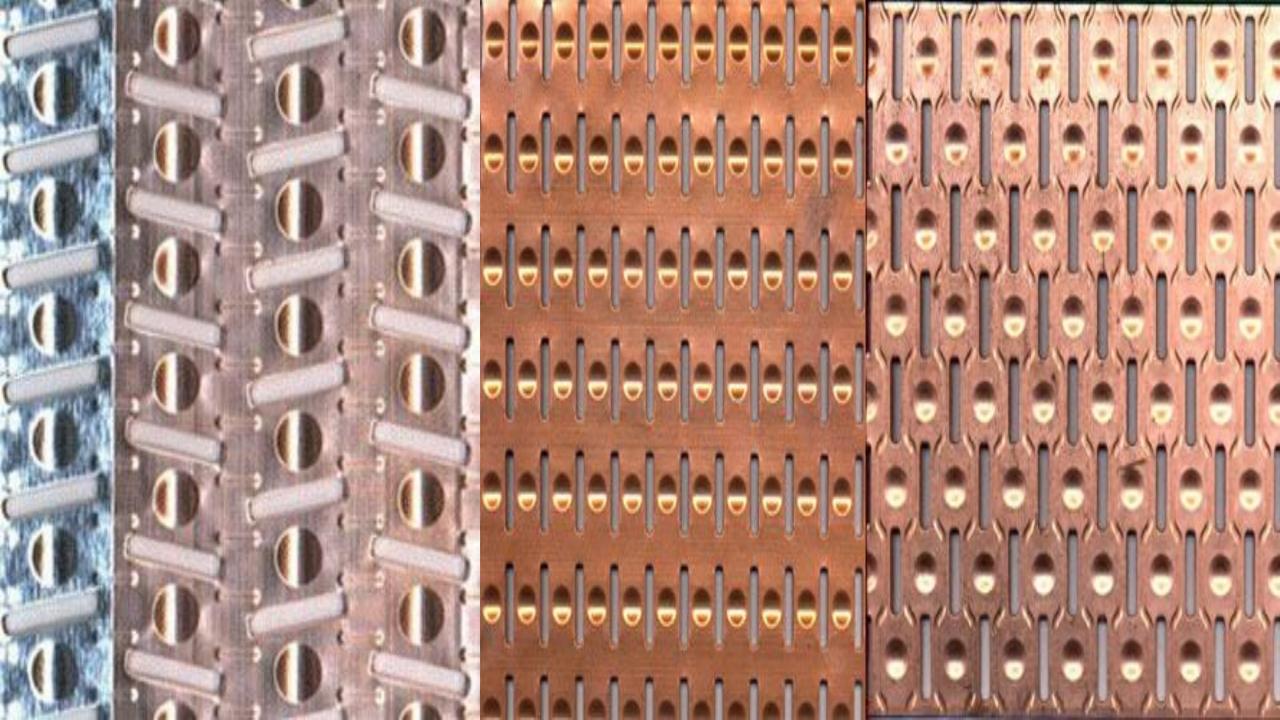
2race (70/20)

Brass (70/30) 64

Sleel (Low Carbon) 31

Solder (lead/tin) 20 - 37





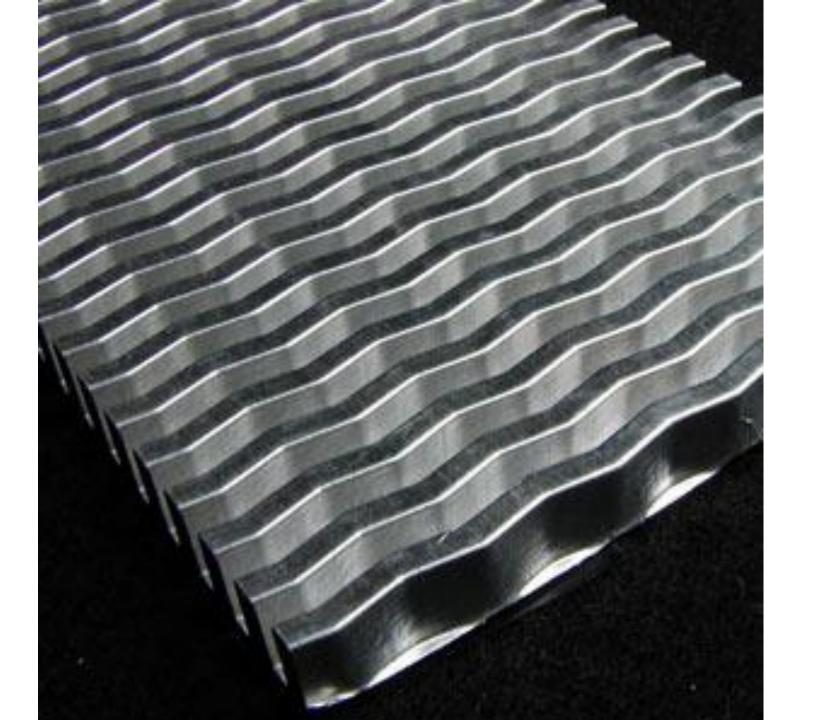
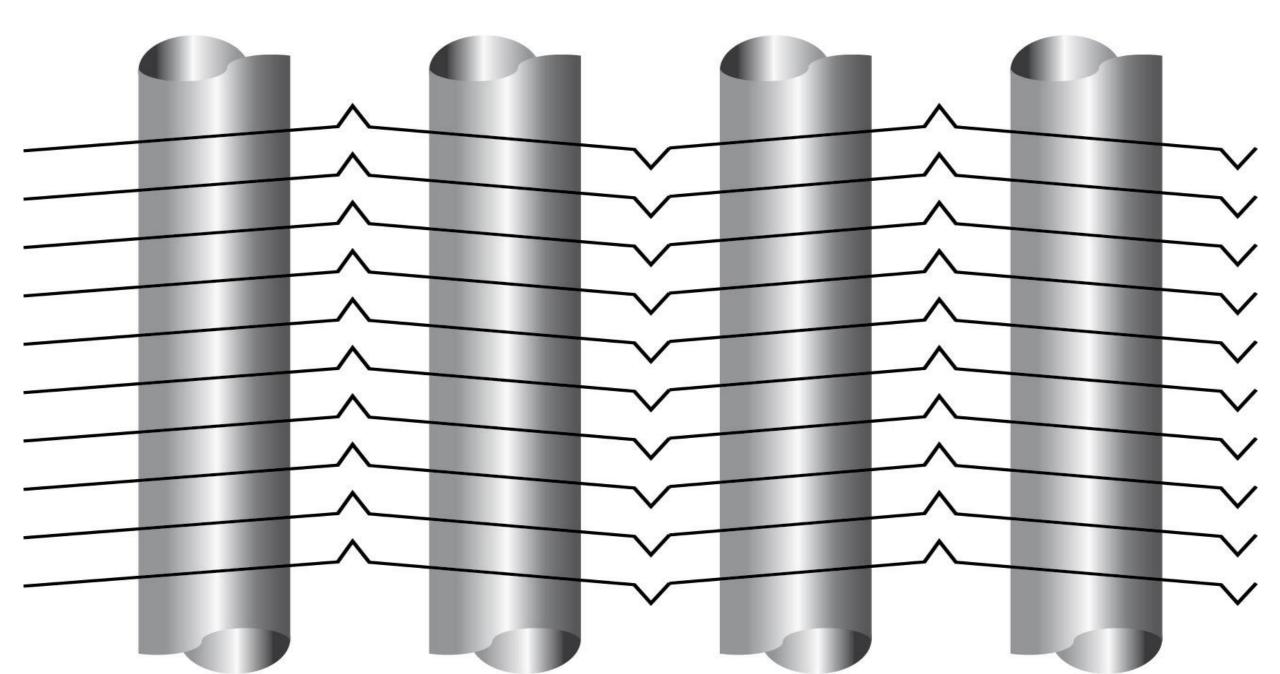
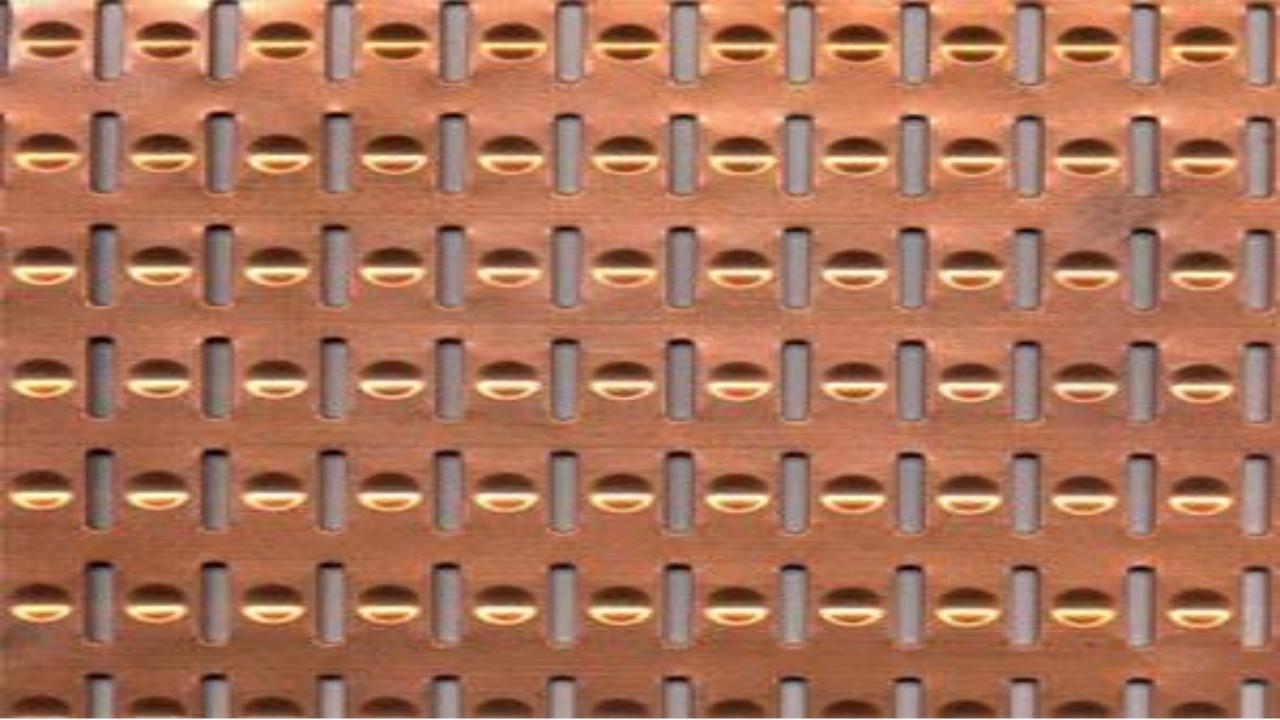
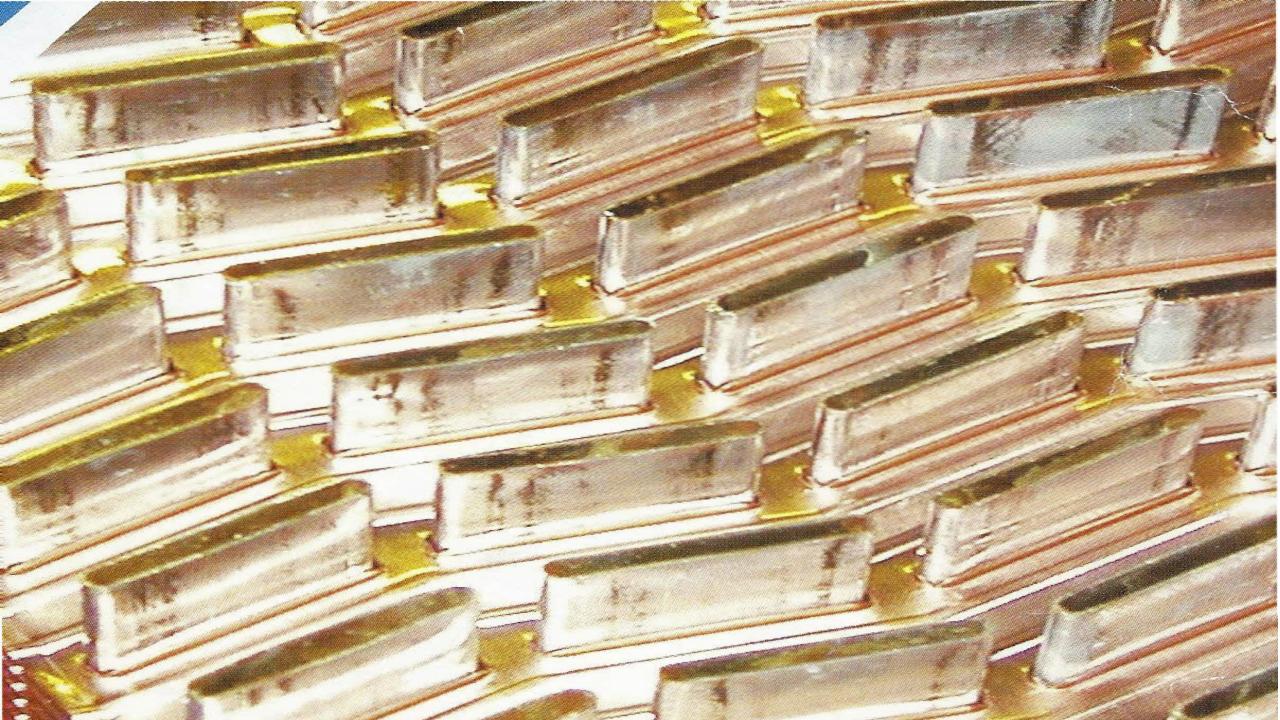
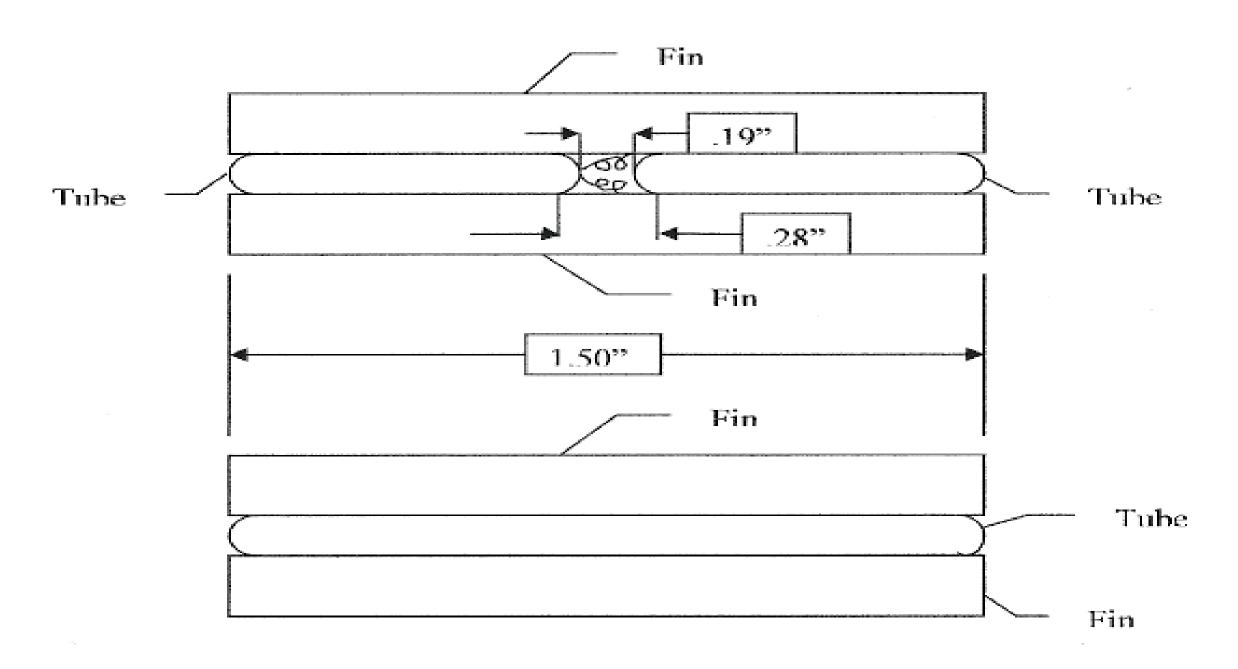


Plate Wave Fin









DEEP TUBE ONE ROW CORE VERSUS TWO ROW CORE