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NOMENCLATURE

Symbol	Description	Unit
A	Plate surface area	m^2
AR	Aspect Ratio, dimensionless	
C	Circumference of the plate	
Cp	Specific heat	*J/kg K*
f	Friction factor, dimensionless	
grad	Gradient *(grad u* $=\partial u/\partial x + \partial u/\partial y + \partial u/\partial z$)	
h	Heat transfer coefficient	$W/m^2.K$
K	Thermal conductivity	*W/m K*
L	Flat plate chord Length	m
Nu	Nusselt number, dimensionless	
Pr	Prandtl number, dimensionless	
P	Pressure	N/m^2
Q	Heat flow	W
Re	Reynolds number, dimensionless	
St	Stanton number	
T	Temperature	^oC,K
t_f	Fluid temperature	
ΔT	Temperature difference	
V	Air velocity	m/s
u	Velocity vector, $(\overline{u_i} + \overline{v_j} + \overline{w_k})$	
ΔX	Thickness of the expanded polystyrene foam	m

Greece letter

α	Angle of attack	*degree*
μ	Viscosity	$N\ s/m^2$
ρ	Density	kg/m^3
ξ	Length angle the inclined plate	*m*

Subscripts

Cond.	Conduction
m	Average
max	Maximum
net	Net
o	Outlet
p	Plate
rad.	Radiation
W	Wall

Abbreviation

2-D	Two-Dimensional
3-D	Three-Dimensional
CFD	Computational Fluid Dynamic
CPU	Central Processing Unit
CV	Control Volume
db	Dry-bulb
Eq.	Equation
Fig.	Figure
ISES	International Solar Energy Society
iso	Isothermal
LMTD	Logarithmic mean temperature difference
NTU	Number of transfer unit
OPF	Overall performance factor
PDEs	Partial differential equations
X_{cr}	Local critical length