NOMENCLATURE

D	Diameter of the jet equal to 12 mm
C_P	specific heat, J. kg^{-1}. K^{-1}
f_1	Dumping coefficient
K	Turbulent kinetic energy thermal
H	Channel height equal to 30 mm
P_K	production of turbulent kinetic energy
h	Cube edge equal to 15 mm
Re_H	Reynolds number of channel airflow
Re_j	Reynolds of the impinging jet
S_{ij}	Mean strain rate tensor
T	Temperature; characteristic time scale
T_{ref}	Flow temperature at the position X/h °C
$T_{component}$	Temperature of the component °C
T_{in}	Air inlet temperature °C
U_i,U_j	Mean velocity in tensor notation

Greek symbols

α	Ratio of Reynolds Re_j/Re_H
β^*	Coefficient of Thermal expansion
Γ	Coefficient of diffusion
δ_{ij}	Kronecker symbol
ω	Specific dissipation rate s^{-1}
ε	Turbulence dissipation rate $m^2.s^{-3}$
ϕ	Generalized variable
μ	dynamic viscosity, kg. $m^{-1}.s^{-1}$
φ	Density of the flux W. m^{-2}
λ	Thermal conductivity w / m.°c
υ	Kinematic viscosity kg / m.s
ν_t	Turbulent kinematic viscosity $m^2.s^{-1}$
ρ	density of the fluid kg / m^3
τ_{ij}	Reynolds stress tensor
η	Efficiency

Subscripts

H	Channel
j	impinging jet
ref	Reference
component	Component
in	Inlet