

คำอธิบายสัญลักษณ์และคำย่อ

คำย่อ

a	flow area (m^2)
a_t	flow area per tube (m^2)
A	cross section area (m^2)
B	baffle space (m)
COP	coefficient of performance
C_p	specific heat ($\text{kJ kg}^{-1} \text{K}^{-1}$)
C	clearance (m)
D	diameter (m)
g	specific gravity (m s^{-2})
G	mass velocity ($\text{kg s}^{-1} \text{m}^{-2}$)
\dot{G}	condensation loading for the horizontal tube ($\text{kg s}^{-1} \text{m}^{-2}$)
h	specific enthalpy (kJ kg^{-1})
\dot{h}	heat transfer coefficient ($\text{kW m}^{-2} \text{K}^{-1}$)
ID	inside diameter (m)
J_H	heat transfer factor
K	constant value
k	thermal conductivity ($\text{W m}^{-1} \text{K}^{-1}$)
l	throat length (m)
L	length (m)
\dot{m}	mass flow rate (kg s^{-1})
N_t	number of tube
n	number of pass
OD	outside diameter (m)
P	pressure (kPa)
P_T	pitch (m)

Q	heat transfer rate (kW)
R	gas constant ($\text{J kg}^{-1} \text{K}^{-1}$)
Rd	fouling factor
Rm	entrainment ratio
S	mixing chamber length (m)
t	water temperature (K)
T	temperature (K)
U	overall heat transfer coefficient ($\text{kW m}^{-2} \text{K}^{-1}$)
W	work (kW)

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π	pi
ϕ	wall angle
μ	viscosity ($\text{kg m}^{-1} \text{s}^{-1}$)
V	specific volume ($\text{m}^3 \text{kg}^{-1}$)

ตัวห้อย

$1-6$	refers to Figs. 1 and 2
avg	average
c	condensation region
cl	clean surface
C	condenser
con	convergent
d	desuperheat region
dir	dirty surface
div	divergent
e	primary nozzle exit plane

<i>eq</i>	equivalent
<i>E</i>	evaporator
<i>f</i>	sat. liquid at condenser temperature
<i>g</i>	sat. vapor at condenser temperature
<i>G</i>	generator
<i>I</i>	inside
<i>i</i>	inlet
<i>m</i>	ejector throat
<i>mix</i>	mixed fluid
<i>o</i>	outlet
<i>O</i>	outside
<i>p</i>	primary
<i>P</i>	pump
<i>R</i>	area ratio
<i>s</i>	secondary
<i>sh</i>	shell
<i>T</i>	nozzle area ratio
<i>t</i>	tube
<i>th</i>	nozzle throat
<i>W</i>	wall
<i>wi</i>	water inlet
<i>wo</i>	water outlet

อักษรย่อ

ESDU	Engineering Sciences Data Unit
EES	Engineering Equation Solver
LMTD	Log Mean Temperature Difference