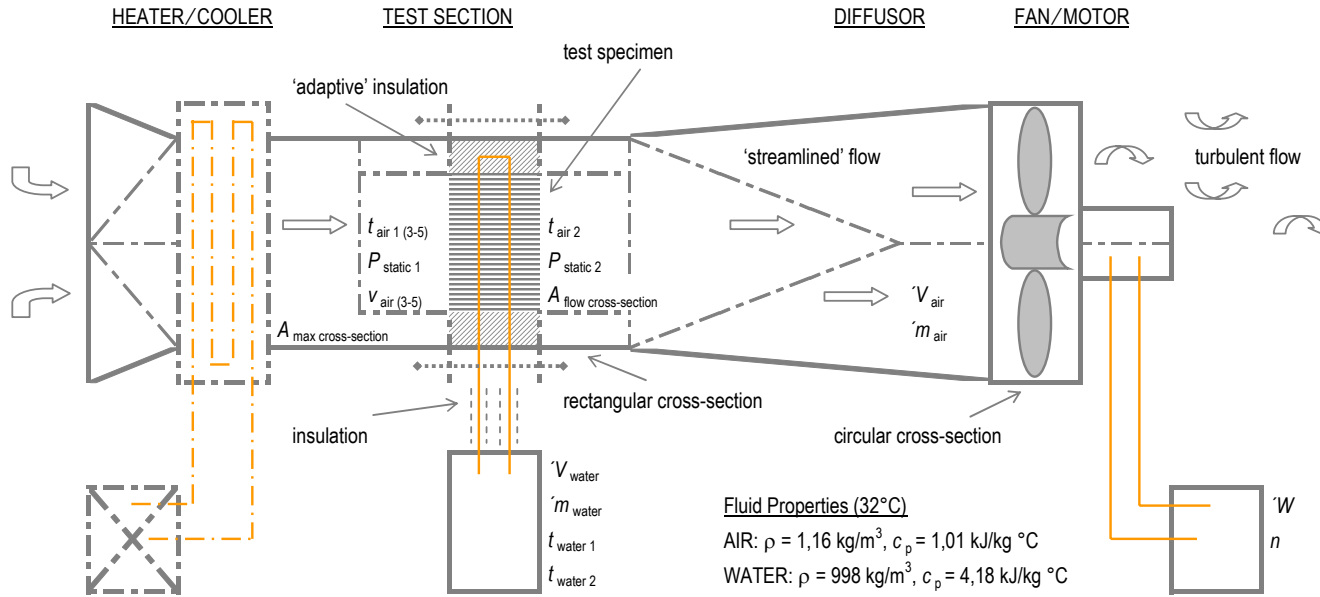


# HEAT EXCHANGER (cross-flow) – Finned-Tube Condenser/Evaporator

Wind Tunnel Test (calorimetric)



**AIR FLOW**

$\dot{V}_{\text{air}}$ (m <sup>3</sup> /s)	**
$\dot{m}_{\text{air}}$ (kg/s)	**
$t_{\text{air } 1 (3-5)}$ (°C)	(*)
$t_{\text{air } 2}$ (°C)	**
$A_{\text{flow cross-section}}$ (m <sup>2</sup> )	(*)
$v_{\text{air } (3-5)}$ (m/s)	(*)
$P_{\text{static } 1}$ (kPa)	*
$P_{\text{static } 2}$ (kPa)	*

**WATER LOOP**

$\dot{V}_{\text{water}}$ (liter/min)	(*)
$\dot{m}_{\text{water}}$ (kg/s)	**
$t_{\text{water } 1}$ (°C)	(*)
$t_{\text{water } 2}$ (°C)	*
$\dot{Q}_{\text{water}}$ (J/s)	**
$v_{\text{water}}$ (m/s)	**
$(\dot{Q}_{\text{air}} = \dot{Q}_{\text{water}})$	

**PRODUCT DATA (physical)**

$D$ (mm)	
$H$ (mm)	
$W_o$ (mm)	
$\phi_{\text{tube}}$ (mm)	
$t_{\text{tube}}$ (mm)	
$A_{\text{tube+fin}}$ (m <sup>2</sup> )	

**Thermal Performance**

$\dot{Q}_{(\epsilon = 0,95)}$ (W)	**
$UA$ (W/°C)	**
$\Delta t_{\text{LM } (F = 0,95)}$ (°C)	**
$\dot{V}_{\text{air}}$ (m <sup>3</sup> /h)	**
$\Delta P_{\text{static}}$ (kPa)	**
$h_{(\eta = 0,75)}$ (W/m <sup>2</sup> °C)	**

(\*) Set-up (adjusted) value \* Measured value \*\* Calculated value