The following formula is the basic principle of type317:

 (1-1)

  (1-2)

  (1-3)

  (1-4)

 (1-5)

  (1-6)

 (1-7)

where：

 (1-8)

where：

*ua* is effective heat transfer factor ,kJ/h; *cpc* is cold fluid specific heat capacity, kJ/kg;

*eff* is the effectiveness of the preheater; *flci* is inlet flow rate of feedwater ,kg/h;

*Tci* is inlet temperature of feedwater,℃; *Tsat* is saturated vapor temperature,℃;

*Qdot* is the transferred heat ,kJ/h; *Tco* is the feedwater outlet temperature,℃;

*Tho* is the hotside outlet temperature,℃; *flbi* is the flow rate of condesate, kg/h;

*hbi* is the enthalpy of condensate, kJ/h ; *hs* is the enthalpy of saturated water, kJ/h;

*flhdm* is the required steam mass flow to bring feed water,kg/h.

However, we find that there are some problems with formula (1-6), for the following reasons:

 (1-8)

The formula (1-8) is the same as (1-7), We noticed that was the transferred heat by the required steam mass flow, The first item  is in the same order of magnitude as the second ,so the required steam mass flow is greater than the real steam mass flow. Only when flhdm=0 is in line with the actual situation.

Based on the above analysis, we believe that the formula (1-6) is incorrect and needs to be corrected. The proposed formula is revised to the following formula:

