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<b>PU</b>	Public	
<b>PP</b>	Restricted to other programme participants (including the Commission Services)	
<b>RE</b>	Restricted to a group specified by the consortium (including the Commission Services)	
<b>CO</b>	Confidential, only for members of the consortium (including the Commission Services)	<b>X</b>

Pillow plate heat exchangers (PPHE), which are made from hydroformed welded plates, represent a promising alternative to conventional shell-and-tube and plate heat exchangers. However, the knowledge for the PPHE design is hardly available. Therefore, a comprehensive CFD study on the fluid dynamics and heat transfer in pillow plates was performed. In order to capture the real flow field, it is necessary to accurately reconstruct the complex PPHE geometry. This was achieved through deformation simulations. Numerical results show a large PPHE optimization potential with respect to various geometrical parameters, such as the shape of weld-spots.