CASE STUDY

FLUID CODES

- ● SOFTWARE
- ● SUPPORT
- ● TRAINING
- ● CUSTOMIZATION

CONTACT OUR LOCAL OFFICES

UNITED ARAB EMIRATES	+971 4330 8666
SAUDI ARABIA	+966 13 8318182
EGYPT	+971 4330 8666
BULGARIA	+359 88 8813820
UNITED KINDOM	+44 20 3753 4607

✉ sales@fluidcodes.com

✉ consulting@fluidcodes.com

🌐 fluidcodes.com

HEAT EXCHANGER

CHALLENGES

For the present investigation, the CFD technology was used to design a full-scale 3D model of the water entrance area of a heat Exchanger.

ENGINEERING SOLUTION

The inflows of clean and non-clean water were solved in order to predict the erosion and accretion of the solid particles.
The CFD results allowed the issue of erosion to be addressed and root caused identified as the flow inlet did not allow sufficient residence time before entry to the tubes of the heat exchanger.
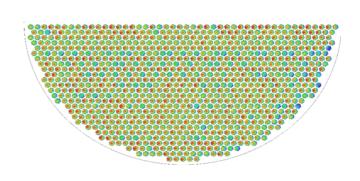

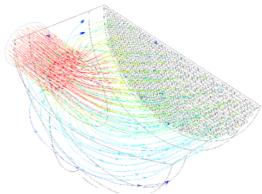*Figure 1.* Shows the water entrance system

Figure 2. Contour plot indicating the erosion rate

Figure 3. Particle tracks for all particle sizes

fluidcodes.com