

# Anton Tai Chi Autonomous Inflow Control Device(AICD)

AICD can decrease water production and improve oil production based on fluid mechanics theory. The Anton Tai Chi AICD technology employs an engineered system of flowpaths and channels to control downhole fluid flow. Which named for its shape as Tai Chi.

## Working Principle

Oil and water have different physical properties, Anton Tai Chi Autonomous Inflow Control Device includes a viscosity selector which utilizes a system of flow paths to differentiate between fluids flowing through the device autonomously based on fluid viscosity, density and velocity. The fluid selector can restrict the flow of unwanted fluid (water) from entering the wellbore, while provides very little restriction to the desired fluid (oil), which enable lower water production and maximum oil output.

## Application

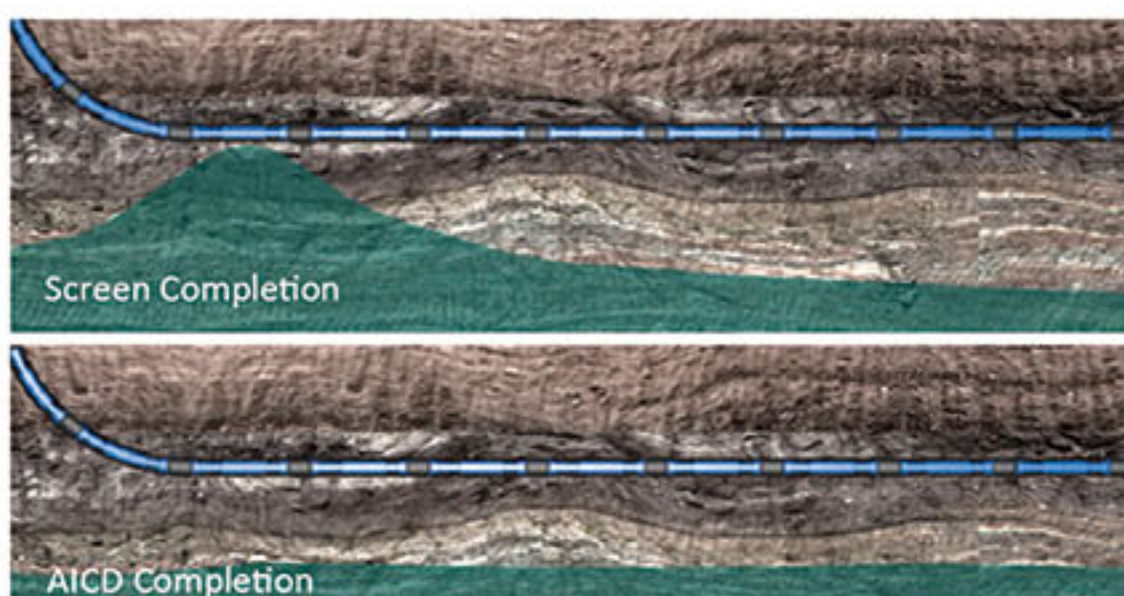
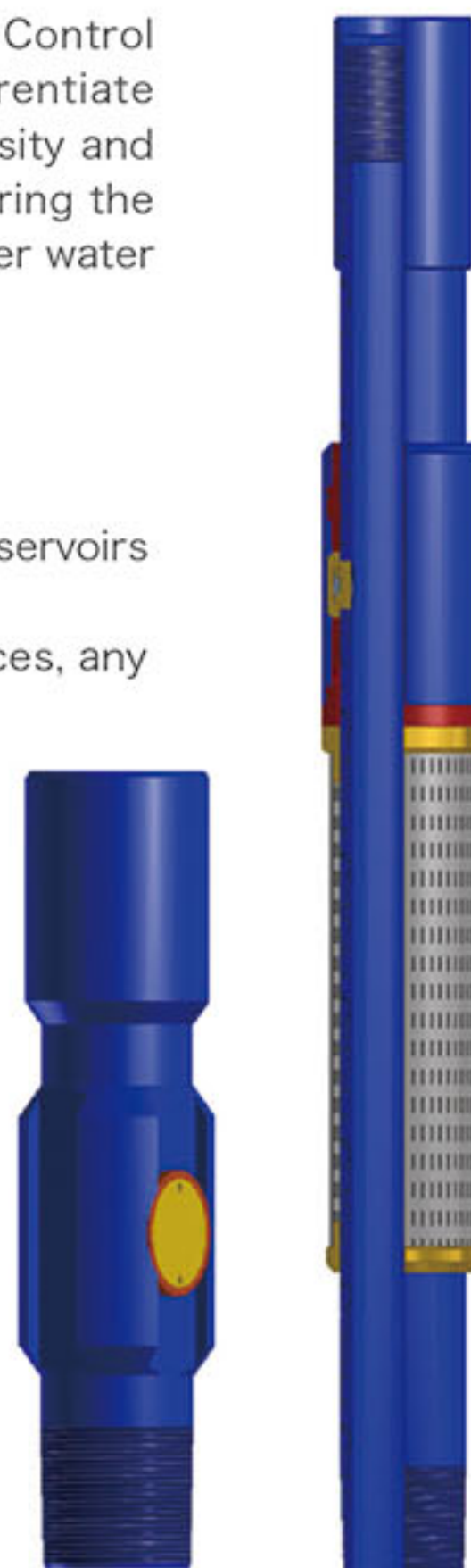
- It is installed as part of the completion string and highly fit for any long horizontal reservoirs with high permeability variances.
- Edge or bottom water reservoir, breakthrough of water/gas, permeability differences, any water or gas challenges in new and workover wells.

## Features and Benefits

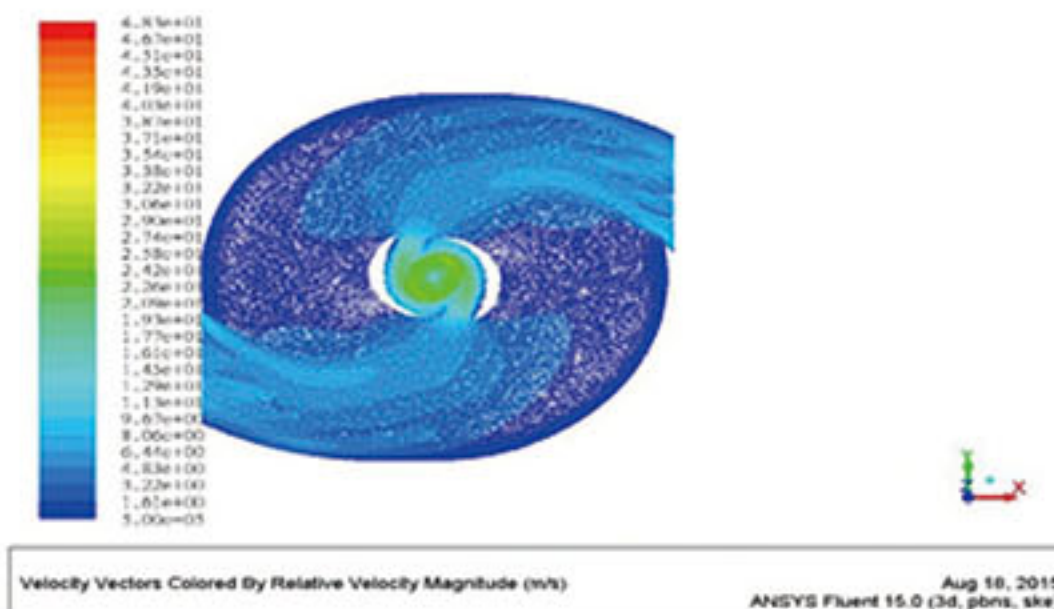
- Maximizes oil recovery and minimizes water production
- Identify water and oil autonomously
- Modular design, simple to install and save NPT
- Rugged flow selector design provides long service time
- Combined with packer or sand screen to achieve multiple function completion
- Cost-effective solution to water or gas challenges wells
- Anton independent technology, Canadian International Patent

## Case History

Anton Tai Chi AICD successful applied in over 100 wells with high performance in EOR.



Comparison between AICD



Conventional completion flow fields simulation