

# BOWMAN®

## Stainless steel plate heat exchangers

### The problem...

Plate heat exchangers have become the 'industry standard' for cooling or heating fuel on automotive test bed engines – and Bowman products are some of the most widely used, proven and trusted on the market.

In recent times, the introduction of ethanol into fuels has made new demands on these stainless steel heat exchangers. Traditionally they are brazed with copper materials and the problem is that ethanol in fuels attacks copper. Using ethanol in fuels, even in modest amounts, can cause copper to be leached into the fuel and deposited in the fuel injection system, with the risk of performance problems and failures.

### The solution...

Leading automotive customers approached Bowman's heat transfer design experts for a solution.

We responded by developing a totally new construction method for stainless steel plate heat exchangers.

The new units feature a brazing compound which eliminates copper from the manufacturing process – so there is no risk of it leaching into the fuel injection system.

The new heat exchangers still deliver all of Bowman's outstanding heat transfer efficiency yet are totally safe for ethanol fuels.

# Copper-free Plate Heat Exchanger

The safe, efficient solution for cooling or heating ethanol based fuels



### Super efficient heat transfer design

Unique Bowman design ensures that heat is dissipated efficiently via channelling the fuel around the maximum internal surface area of the unit.



### Copper-free construction

No Copper is used in the manufacturing process, eliminating the 'leaching' problems experienced previously. This is believed to be an industry first for Bowman.



### In-line installation

The unit is easily fitted into the fuel line, as both inlet and outlet ports are situated adjacent to each other, ensuring a neat installation.



### Quality construction

Neat, clean construction, manufactured to Bowman's renowned high standards using high quality 316 stainless steel.

