

K100 Fuel Pump

Instead of spending \$300 USD on a new fuel pump from BMW, I devised the solution below. I used an \$80 fuel pump from NAPA Auto Parts Store, part number P74095. I believe it is intended for a four cylinder Ford car. Many thanks to my friends Rick Landi and Ladd Fowler. Rick suggested using the original fuel pump canister to house the new smaller fuel pump. Ladd suggested the fuel cell foam to hold the small pump within the larger canister.

Fuel cell foam is special open-cell, gasoline-resistant foam that is used to baffle fuel tanks on aircraft, race cars, and some emergency vehicles. It helps prevent in-tank fuel ignition and, in the case of a tank rupture, helps prevent fuel spilling out. I purchased the foam from [Fuel Safe](#) in Redmond, WA, USA. It is not cheap. My 5 gallon size was \$40 USD. The foam normally occupies 3% of the volume, leaving 97% for fuel. The foam will allow gasoline to surround the fuel pump. This is important because in-tank fuel pumps are designed to be cooled by the gasoline that surrounds the pump.

My first [attempt](#) at using the NAPA fuel pump did not work out. Click on a photo to see an enlarged view.



Here's the foam as it arrived. It came in two pieces. This 5 gallon size was the smallest I could get from Fuel Safe.



The old BMW fuel pump outer canister, the NAPA fuel pump, and a piece of foam I cut out of the large block.



Another view of the three separate pieces.



The new smaller fuel pump is inserted into the foam.



Now the foam with the smaller pump is inserted into the canister.



Top view of the stuffed canister.



Bottom view of canister.



Now the old canister will fit perfectly into the BMW gasket.



The entire assembly is ready to snap into the bracket inside the gas tank.



The BMW fuel screen fits perfectly onto the bottom of the canister.

I am very happy with this arrangement. It fits snugly in place with no banging about. Fuel flows easily through the foam.