



# Motorsport Fuel Tanks

FIA Standard FT 3.0-1999 &  
FT 3.5-1999

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Congratulations, you bought a Continental Fuel Tank manufactured in AACHEN, Germany.

All Fuel Tank Bladders are manufactured referring FIA Standard FT3-1999 or FT.3.5-1999.

### 1. Material

Our fuel cells are made out of high quality elastomer coatings and high end fabrics.

The outer and inner sheets are made out of different Nitrile rubber/Natural rubber reinforced with Aramid and/or Polyamide fabrics. Which material you use, depends on the Material specification you choose for your Fuel Tank.

The reinforcement fabrics are made in Germany.

### 2. Temperature

One of the characteristics of the fuel cell is the flexibility. Temperature changes can impact the flexibility of the fuel cell. The fuel cell should be used in a regular environmental temperature range.

### 3. Life span

No fuel cell shall be used for more than 5 years after the date of manufacture, unless re-inspected and recertified by Continental at the end of this 5 years period, for a supplementary period of up to 2 years after the date of recertification not exceeding 7 years after the date of manufacture.

Please contact us for further details e.g. recertification of your fuel cell.

### 4. Storage

Before storing a fuel cell bladder emptying the bladder completely, wash with water & soap, and dry the interior, close of all ports and keep it in a dark, warm and dry area with a temperature range around 25°C. In any event, the relative humidity of the atmosphere in storage should be less than 70%.

### 5. Safety Foam Baffling

The fuel cell foam is made out of open cell reticulate material. When used in a fuel cell the foam helps to

avoid explosions, control fuel slosh and absorb the energy given off from impacts.

The foam should **never** be handled when wet with fuel - the surface could get in fire.

Flush the fuel cell with water before removing the foam.

The foam should only be used with gasoline and not with additives, water, alcohol or aromatics with a percentage above 50%. If additives have been used previously, the foam can still be used given that it is cleaned and dried immediately after its use.

However, any amount of alcohol constituent in a fuel blend will shorten the life and effectiveness of the safety foam baffling.

Continental recommends inspecting the fuel cell foam every 6 month and replacing any softened or flaking foam identified, or you replace it with a new one..

### 6. Safety Foam removal - CAUTION

The foam should NEVER be handled when wet with fuel. Continental fuel cells must be cleaned and out of use before any inspection, disassembly or storage. The Foam baffling should only be removed when it is completely dry.

Emptying all fuel out of the fuel cell and then filling with water - drilling the water around the fuel cell and emptying. The safety foam should be removed immediately thereafter and dried. Wipe the fuel cell dry. The foam can be cleaned and reinstalled or you replace it with a new one.

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**Never remove or install Safety Foam that is wet with fuel as it may spray droplets or ignite from electrostatic charges. Please, when working on fuel cells or fuel containers wear full protective clothing - always!**

### 7. Weather Conditions

Based on different weather conditions, like e.g. sunlight, wind, freeze-thaw cycles, low and high temperatures, rain and airborne contaminants the fuel bladder can be affected. Ozone, ultraviolet light, water and acids will have a negative effect on many plastic and rubber parts.

### 8. Abrasion

Fuel cell bladders out of rubber coated fabrics are susceptible to abrasion and chafing.

Handle the fuel cell bladder always with care and install them careful without force or pressure. Keep these items free of: stones, sand or other corroding agents.

Make sure that the container - holding the fuel cell bladder - has a smooth and regular inner surface. Do not place sharp, heavy or irregular loose items inside a fuel cell bladder as they could demolish the rubber coated fabric and cause fuel leak.

### 9. Installation

During the installation of the fuel cell bladder, dry-break valve, vent valves, fuel hoses or other components please follow always and strictly the instructions. Be sure to pay attention to location, bracketing, venting, grounding and isolation from the driver compartment.

Since there are so many different vehicles, it is impossible to give specific installation instructions for every single product.

Please make sure that during the installation the formation of crease, fold or particular pressurized areas must be avoid. If any crease or pressurized area occurred during the installation the fuel cell bladder

skin could collapse and cause leaking points. When in doubt consult a professional chassis builder or vehicle engineer.

### 10. Fuel Compatibility

The majority of the fuel system components are not resistant to all types of fuels. Before buying equipment and keeping the system operational, it is essential to identify the intended fuel or blend (i.e. gasoline, diesel, methanol, etc). Fuel cell foam baffling material can be adversely affected by alcohol as are certain fuel cell bladders. Other chemical fuels, such as nitromethane, nitropropane, hydrazine and additives such as aniline, toluidine and other aromatics can cause damage to hoses, gaskets, valves, fuel cell bladders and other fuel system parts.

### 11. Inflation

Continental fuel cell bladders must not be inflated or pressurized. If a leak control test is requested it can be carried out at 0.01 bar maximum pressure. A gauge and an additional pressure regulator system are essential. Over pressuring can cause severe damage to the fuel cell bladder.

I.e. Elongate the bladder, damage the seams without showing any clear external signs.

### 12. Static Grounding

Electrostatic charges can be caused by the fuel agitation, high flow rates and by induction from other sources. To soften sparking and possible fuel ignition, always resort to electrostatic grounding for the equipment in contact with fuel.

The equipment i.e. fuel cell bladder should be installed with a bonding strap to the chassis for unimpeded electrical dissipation. Overhead fueling rigs, dump cans, hose connections, funnels, valves, gasoline cans etc. must be connected to the ground through straps before the transfer of fuel or vapors. Always wear full protective clothing when working with flammable fuels. All terminals must make a clean full-circle connection to assure electrical conductivity.

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### 13. Modification & Repairs

Repairs, modifications or changes to Continental fuel cells and equipment must only be performed by the manufacturer at its facilities. Temporary disassembly of the fuel cell bladder is recommended and should be performed only by a trained mechanical technician. Reassembly must conform to the original Continental design. A low pressure leak control test (0.01 bar) should be implemented on all joints, gaskets and surfaces.

Please do not perform any inadequate repairs and do not use improper material.

It is safest to send the fuel cell to Continental for repair, or alternatively, replace it immediately with a new fuel cell bladder from Continental.

### 14. Homologation- and Data Block Information

All Continental fuel cell bladders are custom made, inspected and serial numbered. Information about your Continental fuel cell bladder can be found on the data block. The data block contains the manufacture date, inspector, Model#, material of construction, capacity and serial number. BEFORE contacting Continental with any questions please write down this information. Most of the cells also carry a FIA Data Tag and "hologram". Please do not tamper with these I.D.'s.

### 15. Personnel Protection

When handling with flammable substances please make sure to wear full protective clothing and fireproof, antistatic and waterproof equipment.

### 16. Limitation of Warranty

Continental warrants that the products comply with the agreed specification and general industry standards. No further warranty is given.

Continental is not in a position to assess the behavior of the products in the vehicle network in any more detail. When using the products, particularly in motor racing, it is therefore imperative that they are evaluated and approved by the customer. In addition the General Terms of Sale and Delivery of Continental Reifen Deutschland GmbH apply.

Standings: 06/01/2020

#### Contact



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