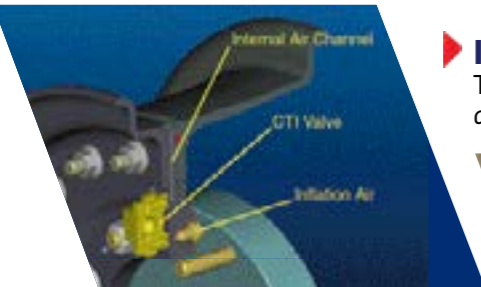


▶ Tactical™ TS2 installation

Mounting and dismounting of the TYRE SAVER SHIELD™ from a vehicle **must be quick and easy**. The system can be equipped by the factory or can be mounted later making the TYRE SAVER SHIELD™ mission specific.

▶ **Solution :** The Hutchinson TYRE SAVER SHIELD™ is easily mounted with screws directly on to the wheel. Therefore, its able to be **mounted without removing the wheel from the vehicle**.



Hutchinson Integrated CTIS design

▶ Integrated CTIS (Central Tyre Inflation System)

The traditional CTI system plumbing on the wheel is a source of leaks and is also time consuming and difficult to assemble due to its complexity.



Standard design

▶ **Solution :** Hutchinson has a patented design of internalizing the air chambers of the CTIS inside the wheel. This drastically reduces the number of components from up to 30 to just 3 components.

This simplified solution offers many advantages:

- Fewer leak points, **improved reliability** and tire life
- **Faster installation**
- **Reduced Weight.**

▶ Tactical™ Deflation Safety System

In-field tyre changes are an often occurrence that need to be completed in a quick and safe manner. Depending on the tire size, the amount of pressure released can be a safety hazard.

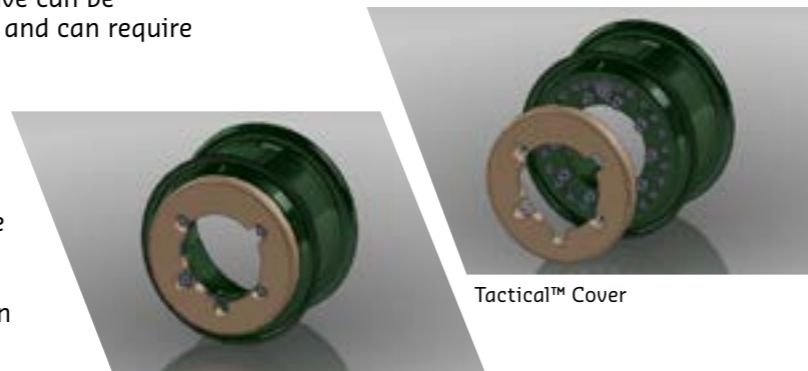


Tactical™ Deflation

▶ **Solution :** The Hutchinson Tactical™ Deflation Safety System is a device that is designed to **prevent removal of the rim nuts while the tyre is still pressurized**. The Tactical™ Deflation Safety System also allows for **rapid deflation, 3 times faster**.

▶ Tactical™ Cover

Hubs and protruding components such as CTIS valve can be **subject to rough conditions** during off-road use and can require protection.



Tactical™ Cover

▶ **Solution :** The Hutchinson Tactical™ cover is custom designed to each application. It is made of **light weight impact resistant polymer** and can **integrate customized features** such as easy access, step function, thermal reduction characteristics or custom color match.

Conception & réalisation : ESCAPE www.escape-com.fr - Crédits photos : Hutchinson - HUTCHWHEEL2014

WHEELS



We make it possible

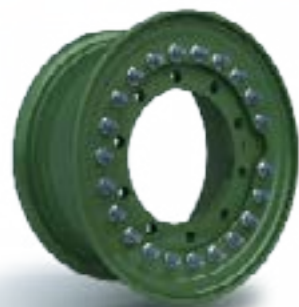
HUTCHINSON INDUSTRIES INC - USA
Phone: +1 609 394 1010
sales@hutchinsoninc.com

HUTCHINSON GmbH - Germany
Phone: +49 (0) 621 39 71 399 - Fax: +49 (0) 621 39 71 406
info@hutchinson.de

HUTCHINSON SNC - France
Phone: +33 (0)1 39 37 42 97
sales@hutchinson.fr

HUTCHINSON UK
Phone: +44 (0)1952 677749 - Fax: +44 (0)1952 608498

HUTCHINSON SRL - Italy
Phone: + 39 02 93474192 - Fax: +39 02 93474178



Hutchinson, the world leader in mobility systems, has provided aluminium wheel solutions to the military, security and commercial markets for decades.

The Hutchinson wheel has been field tested and continues to perform in all major military conflicts. It is also utilized on many commercial and security vehicle applications.

Hutchinson Wheels

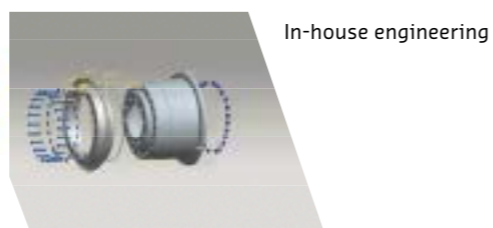
Vehicle builders, have special needs when it comes to adapting their platform to their customers' demands. HUTCHINSON proposes a **turnkey solution, from concept to production**. HUTCHINSON is flexible and can adjust to accommodate special demand regardless of the potential production quantities. As a partner Hutchinson will:

- Develop a concept
- Optimize the design
- Produce prototypes
- Validate and certify the product to any standard requested
- Deliver production

▶ Custom design

Typically, wheels are selected from a catalogue or from existing platforms. Many times this results in additional changes on the vehicle. This constrains the ability to optimize the weight, wheel offset, tire match, load carrying capacity or brake design.

- ▶ **Solution :** Each new Hutchinson wheel is designed by our **in-house engineering** department. We use state of the art solid modelling CAD and FEA software technology. We **design, prototype, test, validate and document** our products to meet the stringent and unique customer requirements.



In-house engineering



In-house testing capabilities

In-house machining



Prototype

▶ Optimized weight

Any reduction of wheel weight allows for additional armoring, increased payload, improved fuel mileage, optimized suspension/dynamic behavior or amphibious capability.

- ▶ **Solution :** The Hutchinson lightweight aluminum wheels can **save up to 60% of the weight** of a comparable steel wheel.

Air transport



Additional armoring

▶ Mine protection

The first barrier against a mine blast is the wheel assembly. Thus, the energy absorption characteristics of the wheel assembly are of the utmost importance to mitigate the blast.

- ▶ **Solution :** Under independent testing our aluminum wheel design has been proven **to reduce the acceleration from a blast significantly** when compared to a comparable steel wheel.



Independent test results: The mine blast acceleration is 48% higher on a steel wheel compared to an Hutchinson aluminum wheel. The mine blast acceleration is 145% greater on a steel wheel without VFI™ compared to an Hutchinson aluminum wheel with VFI™

▶ Impact resistance/toughness

Military vehicles are often exposed to sizeable impacts while operating off road or trying to escape danger zones (driving over curbs, tree trunks, pot holes, etc). The wheels are directly submitted to these impacts.



Hutchinson aluminum wheel



No structural damage upon ballistic impact

- ▶ **Solution :** The Hutchinson aluminum wheel has proven to **perform in the toughest environments**, not only in many off-road durability tests but more importantly in **combat**. Hutchinson's wheels are utilized on many mission specific 4x4's, LAV's and MRAP variants.

▶ Field Maintenance & Safety

On a 3 piece lock ring type wheel, it is impossible to change a tire in the field. A tire mounting/dismounting machine or vertical press is needed. Lock ring may also open any time, with risk of injury.

- ▶ **Solution :** The 2 piece bolted together wheels manufactured by Hutchinson can be **disassembled and reassembled in the field with standard hand tools**.



Bolted together assembly