Gallet TC 800 and TC 500 series

ARCH Helmet System





Because every life has a **purpose...**

Your commitment preserves lives, MSA protects yours

Gallet history



1860 Creation of CGF Gallet



1970s Т MSA contracts with US military to produce masks for the Army, Navy and Airforce



1985 Launch of the "F1 Nickel" Fire Helmet



2008

Launch of the new range of law enforcement helmets with ballistic protection



Launch of the new Helicopter helmet LH350



2013

Launch of the new Gallet F1 XF Fire Helmet



1993 I Launch of the composite UN (United Nations) Ballistic Helmet



2004 I SORDIN becomes part of MSA



2013 I Launch of the Gallet ARCH System

Key facts

- MSA Gallet is at the origin of the Advanced Combat Helmet (ACH) for the US Army
- MSA Gallet helmets are helmets of choice in more than 80 countries around the world
- MSA Gallet ballistic helmets have been trusted by soldiers for many years all over the world

The expertise of Gallet in helmets extends to combat, riot control and assault helmets.

Everyday, millions of firefighters, soldiers, policemen or pilots are on duty with MSA helmets to protect their lives and help them rescue others.

Head Protection expertise

MSA is a strong market leader in Police and Military helmets, thanks to:

- A unique, unmatched product design
- An experienced staff of engineers dedicated to head protection
- State-of-the-art manufacturing facilities using latest technologies
- A "never compromise" approach when it comes to safety and quality
- An end-user.focused approach to capture key needs and ensure optimal and safe use of products



High Performance and Reliability to Meet Customer's Requirements

Our mechanical and ballistic laboratories are equipped in order to develop, repair and subject our products to the most rigorous and punishing tests.

MSA Gallet benefits from a specialized expertise center which uses high sophisticated technology and know-how to perform, maintain and repairs all the products.









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Airborne operations

Airborne missions are complex and require different equipment (free fall jumps, 0_2 equipment, specific wings...). Environments are complex and demanding.

Anti-terrorist and special operations

Anti-terrorist and special operation teams often operate under high ballistic threats. Each team member designs his own and unique configuration of equipment.

ARCH system Helmets fit to these needs:

- Oxygen mask connection
- Bridles hanging (snagging) risk minimized
- Equipment and NVG strong attachment

ARCH system helmets offer:

- Lightweight shells and accessories
- Possible individual customization
- Compliance with tactical equipment (lamps, weapons, communication systems...)



















Combat

Combat gear need to be robust and reliable. Well tried strategies co-exist with modern technologies and means.

Intelligence operations

The different phases of the missions (infiltration, intelligence gathering and exfiltration) require lightweight and discrete equipment.

On the battlefield, ARCH system Helmets provide :

- Interface for Picatinny rails (lamps, cameras and multiple devices)
- Removable NVG interface to allow use of NVG strap mount
- Self-gripping parts for strobe lights, IR patches

- ARCH system Helmets are designed to :
- Receive additional camouflage
- Support specific equipment (camera, NVG)
- Provide the best comfort in extreme conditions









ARCH System Helmets





Reduction of ballistic risks

- No front holes or screws for NVG support
- No additional drilling in the shell
- Low Back Face Deformation (LBFD)



Easy customization

- Quick and easy mounting and dismounting of accessories
- Assembly of NVG support without specific tooling
- Side.rails remain free for use even when O_2 mask is attached



High compatibility with NVG mounts

- Enable Wilcox[®] and Thales[®] NVG support mounting
- Enable use of NVG support with straps



Easy maintenance

- Removable NVG mount, by means of captive screws
- No need of specific tools
- One size fits all, facilitates logistics and replacement of spare parts



High adaptation to specific missions

- Variety of shapes
- Different weights and ballistic performances
- Several head coverages



Innovative adjustment device

- Locking Ratchet (Ajustment wheel, push to unlock).
- Wide ajustment range

ARCH System Helmets, the ultimate protection with complete modularity

MSA engineers have designed GALLET TC ballistic helmets, working one on one with end-users, in order to provide the best performance and quality ballistic head protection. ARCH results from years of teamworking with international Special Forces and Elite troops.







New chinstrap design

- Easy (fine) adjustment of the chinstrap
- Prevent from loosening
- Compliance with earmuffs
- No lose ends



Comfort, ergonomy

- Adjustable inner paddings
- Improved comfort



Comfortable and robust design 3 available colors:

- IR NATO Green
- Black
- Tan



OPTION: 360° buckle

- Quick doning and duffing with combat gloves
- Allow attachment of multiple accessories (goggles, mask, straps...)
- Allow adaptation of personal items



OPTION: 0₂ mask adapter for paratroopers

• Ensure absolute mask air-tightness during High Altitude Low Opening (HALO) free fall jump

Options and Accessories



Interface for Picatinny rail

MIL-STD-1913 rail benefits are well-known and proven.

- Side rails will support Picatinny adapters and allow positioning while sliding them.
- Various accessories, such as lamps, cameras or multiple devices can be easily mounted

NVG support compatible with Wilcox® and Thales® mounts

The MSA NVG interface is unique.

- NVG support allow mounting of widely use Wilcox $^{\circ}$ and Thales $^{\circ}$ mounts, HD cameras, lamps . . .
- It can be dismounted to have a lighter helmet, or to mount NVG with straps.
- This high versatility is an important step forward for modularity and compliance with all types of NVG mounts.





360° Buckle for multiple adaptations

These innovative buckles allow multiple adaptations and positioning of various equipments..

- They can be easily fastened or removed with combat gloves.
- All types of accessories, such as 0₂ masks, spectacles and goggles, counterweights, straps for strobe lights, etc, can be attached and secured.
- Design yourself your own adaptation to better customize your product.

Velcro[®] fastening system

ARCH system includes large pieces of velcro fabric on the shell.

• This system allows you to fasten strobe lights, V lights, NVG battery pouches, IR patches, counterweights, helmet covers and others, in an easy and confident way.







Recall bungees

- Front bungees avoid undesirable NVG moves
- Back ones secure equipment such as strobe lights, stick lights and counterweights, NVG batteries, goggle straps...

Top Bungees

- They can be used to secure cables and strobe lights.
- Camouflage attachement is also possible.





Technical characteristics

ARCH System Helmets									
Colors	Black, NATO Green, Tan								
Sizes	one size fits all								
Ballistic performances	Gallet TC 800 series Bullet: Level IIIA according to NIJ-STD-0106.01 and NIJ-STD-0101.06 ammunitions Fragments: FSP 17gr (STANAG 2920) V50 @ 670 m/s								
	Gallet TC 500 series Bullet: 9x19 mm FMJ according to NIJ-STD-0106.01 level II Fragments: FSP 17gr (STANAG 2920), V50 @ 550 m/s								
Shape, weights and coverage	TC 800: Ear Covered ("ACH" cut), 1546 g, 1138 cm ² TC 801: Full ear cut, 1426 g, 1010 cm ² TC 802: Mid ear cut, 1506 g, 1082 cm ² TC 501: Full ear cut, 1170 g, 1010 cm ² Rails: 137 g NVG support: 115 g								
Extreme environment resistance	Against heat, cold, saline environment, immersion, flame (EN397), chemical products								
Accessories	Picatinny rails interface NVG interface compatible with Wilcox® and Thales® mounts 360° buckles allowing multi use Velcro patches for strobe lights, stick lights, batteries, IR patches Bungees Etc								

Product References

ARCH System Helmets uses a configurable part numbering system for an optimal selection of the best suited configuration.

C X	X	X	X	X	X	0	0	0	X	0	X	0	0	0	0
Performa	nce Cut	Suspension System	Retention System	Size	Color				NVG Interface & Rails		Bag & Carry Bag				
1. Shell 5.5 mm V50 = 550m/s 9x19 m from NI 3. Shell 8 mm: V50 = 670m/s NU IIIA	II	3. ARCH, Ratchet & Set of Pads	1. ARCH, Standard Chinstrap	1.52-545 2.55-57 3.575-595 4.60-64	1. Black 2. NATO Green 3. Tan				 No Rails, No NVG Interface ARCH Side Rails (Compatible with NVG Interface) ARCH Side Rails & NVG Interface ARCH Side Rails V2 (NOT compatible with NVG Interface) 		0. No Bag (Bubble Bag) 1.Black Soft Carry Bag				

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Trust & Durability

For nearly 100 years our passionate mission of safety empowers us, "The Safety Company", to protect lives. We are committed to providing the latest in innovative, best-in-class safety solutions that feature integrated systems capabilities and allow our customers to return "Home" safely to their families and friends.

Every day our customers place their lives in our hands. In return, we provide them with protection they can trust, and their stories become our stories. Hand in hand we partner with our customers to earn that trust.

At MSA, Every Life has a Purpose.

Photos credit: L. De Souza and P. Poulet.

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