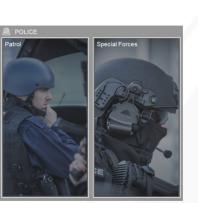


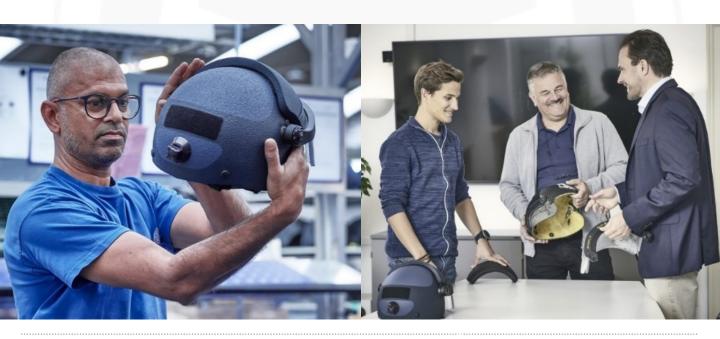
TRUE PROTECTION SAVES LIVES







REAL PEOPLE FOR REAL PEOPLE











Highest STOP effect

FIRST RESPONDER **HELMET**



FIRST RESPONDER **HELMET + FORTIS**



RIFLE HELMET

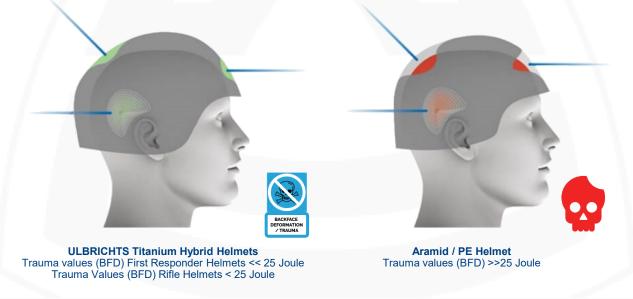








Lowest Trauma values (Backface deformation / BFD)







Smart modularity for all tactical needs





Scan me for more information

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TRUE PROTECTION **HOW WE SAVE LIVES**



TRUE PROTECTION

ULBRICHTS VPAM3 HVN2009 Helmet

WITH STAND-ALONE VPAM 6 Protection and Trauma-values <25 Joule analog to HVN2009

+ FORTIS NEW ZENTURIO

Standard Military helmets and classical NIJ Illa helmets are built for shrapnel and fragment protection but is this the real ballistic threat they are confronted with?

Times changed tremendously due to bullet protection requirements, so it's not enough to protect against shrapnel and fragments only. ALSO Just stopping a bullet is not enough as per NIJ Illa requirements!

For TRUE ballistic head protection, a helmet must combine two capabilities:

- 1. Stop projectiles of handguns and rifles
- 2. Prevent a severe backface deformation leading to a lethal brain trauma

A ballistic helmet shall come with TRUE Protection against projectiles.

The major differentiation must be done in the selection of the right protection and weight balance due to the major threats, forces are confronted with.

True Handgun protection starts at 1,2kg without accessories, and rifle protection can be upgraded through shields. Both must come with trauma prevention below 25 joules to make them sustainable.

True rifle protection with stopping AND preventing a severe backface deformation leading to lethal brain trauma starts at 2,1kg without accessories.

Ballistic Protection against 7.62x39 MSC **Ballistic Protection against 9x19mm PENETRATION** LETHAL TRAUMA TRUE PROTECTION Std. NIJ IIIA Aramid Helmet ULBRICHTS VPAM3 HVN2009 Helmet (VPAM 3 / NIJ IIIA - HELMET) Trauma ~80 Joule Trauma < 25 Joule BACKFACE DEFORMATION

The recommendation to secure trauma values below 25 joules is to test according to VPAM HVN2009. This standardized test procedure ensures that helmets are tested reproducible and comparable to each other while following the same test normed procedure done by independent test facilities. Besides the ballistic test, it's also mandatory to succeed in environmental and chemical resistance tests.

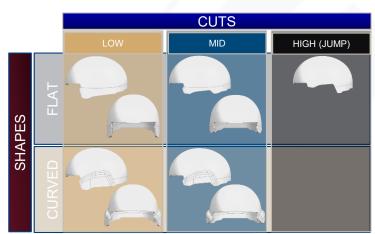
The ballistic helmet should balance weight and protection surface according to individual mission requirements while keeping the flexibility in accessories and maximum protection.



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POLICE-FIRST RESPONDER POOL SOLUTION



VALUE PROPOSITION

- POOL SOLUTION → one size fits all Every police car can be equipped with one size of a ballistic helmet
- NO Personal equipment → The helmet supports easy procurement and maintenance procedures
- The ballistic helmet should balance weight and protection surface requirements
- The ballistic helmet should be at least on the same protection level as the ballistic vest!
 - VPAM 3 or even VPAM 6

THE ULBRICHTS ANSWER:





ULBRICHTS Protection General Brochure Revision: 12/2022

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POLICE - SPECIAL FORCE









POLICE-SPECIAL FORCES SOLUTION



VALUE PROPOSITION

- Personal equipment → The helmet supports easy procurement and maintenance procedures
- The ballistic helmet should balance weight and protection surface according to mission requirements
 - #1 lightweight for roping but with VPAM3 HVN2009 protection
 - #2 highest protection grade against rifle threats

THE ULBRICHTS ANSWER:



OPTIO 9x19 / 9x19+ VPAM3 HVN2009

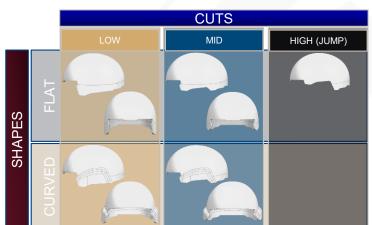


RIFLE HELMET ZENTURIO 7.62x39 MSC



MILITARY - ASSAULT SOLUTION









MILITARY-ASSAULT SOLUTION



VALUE PROPOSITION

- One size fits all Every soldier can be equipped with one size of a ballistic helmet
- The helmet supports easy procurement and maintenance procedures
- The ballistic helmet should balance weight and protection surface requirements
- The ballistic helmet should also protect against bullet threats

THE ULBRICHTS ANSWER:



OPTIO 9x19 / 9x19+ VPAM3 HVN2009

FORTIS RIFLE Upgrade

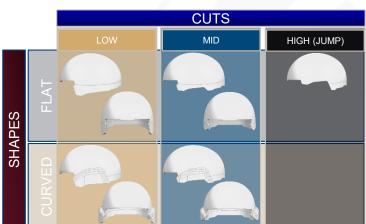
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MILITARY - SPECIAL OPS SOLUTION









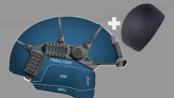
MILITARY-SPECIAL OPS SOLUTION



VALUE PROPOSITION

- The helmet supports easy procurement and maintenance procedures
- The ballistic helmet should balance weight and protection surface according to mission requirements
 - #1 lightweight for parachuting but with VPAM3 HVN2009 protection and Rifle upgrade
 - #2 highest protection grade against rifle threats for direct action

THE ULBRICHTS ANSWER:



OPTIO 9x19 / 9x19+ VPAM3 HVN2009 + FORTIS VPAM 6 Upgrade



RIFLE HELMET
ZENTURIO 7.62x39 MSC

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DIFFERENT BALLISTIC PROTECTION SOLUTIONS UPON

DIFFERENT MISSION

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OPTIO RIOT HANDGUN PROTECTION



Benefits

TRUE HANDGUN PROTECTION HELMETS

- Available with the following accessories:
 - In-House produced Visors via quick mount
 - Neck Protection Anti-Impact or VPAM-3 or 4
 - Velcro
 - Helmet Protection Cover
 - Counterweights
 - Chin Strap Extender
 - Helmet Bag







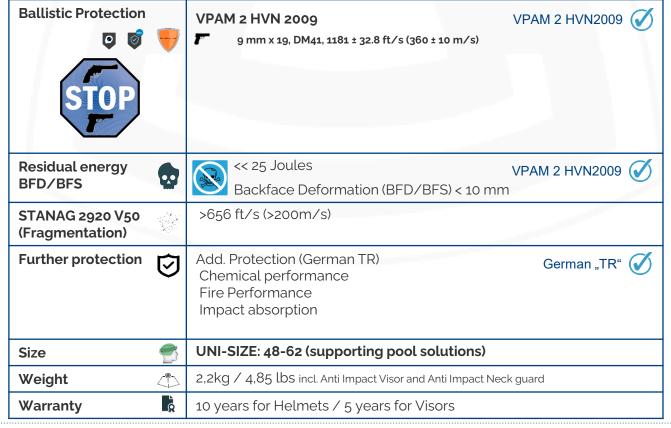








Technical facts



OPTIO LIGHTEST HANDGUN PROTECTION



Benefits

TRUE HANDGUN PROTECTION HELMETS

- Available with the following accessories:
 - In-House produced Visors via quick mount
 - Neck Protection VPAM-3 or 4
 - Velcro
 - Helmet Protection Cover
 - Counterweights
 - Chin Strap Extender
 - Helmet Bag
 - Ballistic upgradability via FORTIS headshield for VPAM6 protection









FLAT

Technical facts

Weight		Flat: 1,2-1,4 ± 0,05 kg / 2.63-3,14 ± 0.11 lbs (CUT: HIGH - MID - LOW) Curved: 1,2-1,5 ± 0,05 kg / 2.63 - 3,19 ± 0.11 lbs (CUT: HIGH - MID - LOW) *0,22 kg / 0.49 lbs with accessiories (Rail / Shroud / Visor adapter)		
Size		UNI-SIZE: 48-62 (supporting pool solutions)		
		UPGRADE WITH FORTIS TO VPAM 6 VPAM 6 HVN2009 with Trauma values analog to VPAM HVN 2009 << survivable 25 Joules		
Further protection	\overline{o}	Add. Protection (German TR) Chemical performance Fire Performance Impact absorption German "TR" Market absorption		
STANAG 2920 V50 (Fragmentation)		>2065 ft/s (>630m/s)		
Residual energy BFD/BFS		<< 25 Joules Backface Deformation (BFD/BFS) < 10 mm		
STOP		9 mm FMJ 1400 ± 50 ft/s (425 ± 15 m/s) 44 Magnum Lead SWC 1400 ± 50 ft/s (425 ± 15 m/s) VPAM 3 HVN 2009 9 mm x 19, DM 41, 1362 ± 32.8 ft/s (415 ± 10 m/s) VPAM 4 357 Mag FMJ/CB/SC 1411 ± 32.8 ft/s (430 ± 10m/s) 44 Mag FMJ/FN/SC 1444 ± 32.8 ft/s (440 ± 10mm/s)		
Ballistic Protection		NIJ IIIa NIJ IIIa		

We prove our words

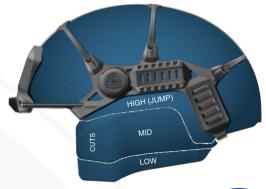
OPTIO+ BEST HANDGUN HELMET

ULBRICHTS PROTECTION

Benefits

TRUE HANDGUN PROTECTION HELMETS

- Available with the following accessories:
 - In-House produced Visors via quick mount
 - Neck Protection VPAM-3 or 4
 - Velcro
 - Helmet Protection Cover
 - Counterweights
 - Chin Strap Extender
 - Helmet Bag
 - Ballistic upgradability via FORTIS headshield for VPAM6 protection









FLAT

Technical facts

Ballistic Protection	NIJ IIIa	
Residual energy BFD/BFS	<< 25 Joules VPAM 3 HVN2009	
STANAG 2920 V50 (Fragmentation)	>2065 ft/s (>630m/s)	
Further protection	Fire Performance Impact absorption	
	UPGRADE WITH FORTIS TO VPAM 6 VPAM 6 HVN2009 with Trauma values analog to VPAM HVN 2009 << survivable 25 Joules	
Size	UNI-SIZE: 48-62 (supporting pool solutions)	
Weight	Flat: 1,5–1,7 ± 0,05 kg / 3.31-3,75 ± 0.11 lbs (CUT: HIGH - MID - LOW) Curved: 1,5–1,8 ± 0,05 kg / 3.31 – 3,97 ± 0.11 lbs (CUT: HIGH - MID - LOW) *0,22 kg / 0.49 lbs with accessiories (Rail / Shroud / Visor adapter)	
Warranty	10 years for Helmets / 5 years for Visors	

We prove our words

FORTIS 7.62x51 NATO RIFLE UPGRADE



Benefits

M80 RIFLE UPGRADE for ULBRICHTS Helmets

Terrorists regard long weapons of the Kalashnikov type as their armaments of choice. No assault rifle is as widespread worldwide and can easily get into the wrong hands.

ULBRICHTS Protection's VPAM-6 end shield combined with ULBRICHTS Protection titanium and titanium hybrid helmets provide true protection against Kalashnikov gunfire. Due to the enormous firepower of a Kalashnikov, police forces have lacked effective head protection.

The ammunition used is mostly the extremely powerful 7.62x39 iron core (VPAM 6), M193, or M80. The 2015 attacks in Paris and 2020 in Vienna and several shootings in the US tragically prove this.

The shield can be attached or removed in a matter of seconds. It is securely fastened using Velcro. This technology makes it possible to retrofit all ULBRICHTS titanium and titanium hybrid helmets with additional protection, thus significantly improving head protection.





Technical facts

Ballistic Protection



We prove our words









7.62mm, 308 Winchester FMJ, 9.7g, 2750 ± 50 ft/s (838 ± 15 m/s)

BACKFACE DEFORMATION / TRAUMA



7.62 x 39 mm MSC, 2363 ± 32.8 ft/s (720 ± 10 m/s)

VPAM 6 Trauma analog to HVN2009





5.56 x 45 mm, M193, FMJ/PB/SC, 3281 ± 32.9 ft/s (1000 ± 10 m/s)

Residual energy BFD/BFS		< 25 Joules Backface Deformation (BFD/BFS) < 15 mm	VPAM 6 Trauma analog to HVN2009 + M193
STANAG 2920 V50 (Fragmentation)		>4000 ft/s (1219 m/s)	
Weight	4	490± 50g / 1,08 ± 0.11 lbs	
Warranty	À	5 years	
Colours	\$	All RAL colours	_

ZENTURIO 18.1H RIFLE PROTECTION



Benefits

TRUE STAND-ALONE RIFLE PROTECTION HELMETS

- OPTIONAL Available with the following accessories:
 - In-House produced Visors via quick mount
 - Neck Protection VPAM-3 or 4
 - Velcro
 - Helmet Protection Cover
 - Counterweights
 - Chin Strap Extender
 - Helmet Bag

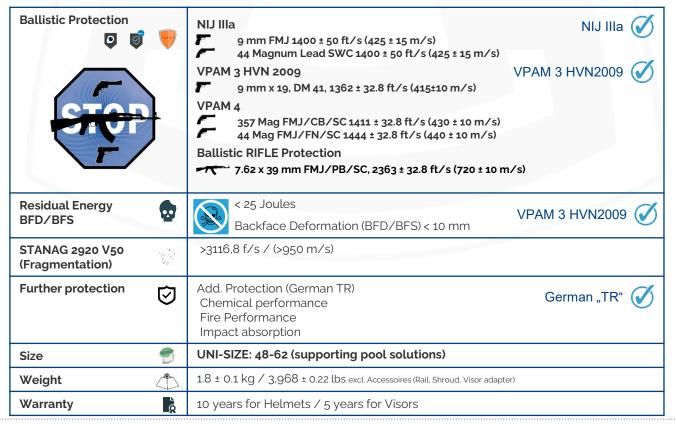






We prove our words Scan me to watch

Technical facts



ZENTURIO 7.62x39 PB RIFLE PROTECTION



Benefits

TRUE STAND-ALONE RIFLE PROTECTION HELMETS

- Available with the following accessories:
 - In-House produced Visors via quick mount
 - Neck Protection VPAM-3 or 4
 - Velcro
 - Helmet Protection Cover
 - Counterweights
 - Chin Strap Extender
 - Helmet Bag





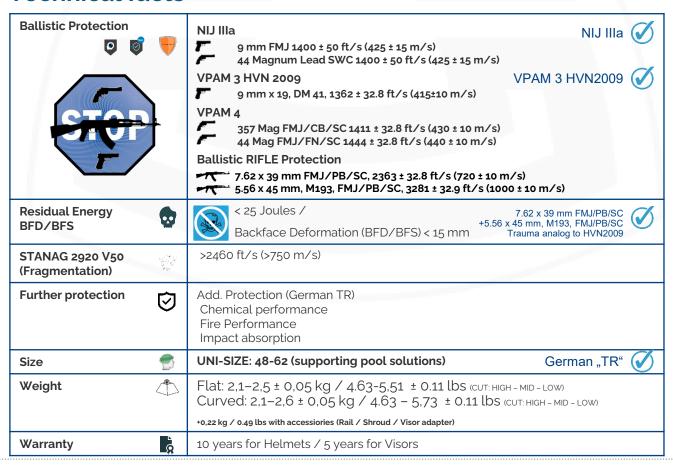
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CURVED
Compatible with
PELTOR Comtac XPI

FLAT



ZENTURIO 7.62x39MSC RIFLE PROTECTION



Benefits

TRUE STAND-ALONE RIFLE PROTECTION HELMETS

- Available with the following accessories:
 - In-House produced Visors via quick mount
 - Neck Protection VPAM-3 or 4
 - Velcro
 - Helmet Protection Cover
 - Counterweights
 - Chin Strap Extender
 - Helmet Bag





Scan me to watch





CURVED

Compatible with
PELTOR Comtac XPI

FLAT







ACCESSORIES - CATALOGUE

VISOR - Anti Impact Protection



Benefits

Fixed on the helmet via quick change system or screwed system

Available with the following accessories:

- Anti-fog foil
- Anti-scratch foil
- Visor protection cover



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Further protection	Add. Protection (German TR) Chemical performance Fire Performance Impact absorption The visor is tested according to 3.2 Chemical behaviors in accordance with TR 05/2010 (sodium hydroxide, hydrochloric acid, sulphuric acid, acetone, white spirit, super petrol and foaming agent) and 3.3 Burning behaviors (according to DIN EN 137 No. 7.4.1.4) of TR 05/2010.	
Design	Straight	
Dimensions	6 x 170 mm	
Weight	600 ± 50g / 1,32 ± 0.11 lbs	
Warranty	5 years for Visors	

VISOR – Anti Fragment Protection



Benefits

Highest STANAG 2920 V50 value for anti fragment visors in the market

Fixed on the helmet via quick change system or screwed system

Available with the following accessories:

- Anti-fog foil
- Anti-scratch foil
- Visor protection cover



Technical facts

STANAG 2920 V50 (Fragmentation)	>1345 ft/s (>410m/s)	
Further protection 😺	Add. Protection (German TR) Chemical performance Fire Performance Impact absorption German "TR"	
	The visor is tested according to 3.2 Chemical behaviors in accordance with TR 05/2010 (sodium hydroxide, hydrochloric acid, sulphuric acid, acetone, white spirit, super petrol and foaming agent) and 3.3 Burning behaviors (according to DIN EN 137 No. 7.4.1.4) of TR 05/2010.	
Design	Straight	
Dimensions	8 x 150 mm	
Weight	750 ± 50g / 1.65 ± 0.11 lbs	
Warranty	5 years for Visors	

VISOR – Anti Fragment Protection



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Benefits

Highest STANAG 2920 V50 value for anti fragment visors in the market

Fixed on the helmet via quick change system or screwed system

Available with the following accessories:

- Anti-fog foil
- Anti-scratch foil
- Visor protection cover



STANAG 2920 V50 (Fragmentation)	>1345 ft/s (>410m/s)	
Further protection 😈	Add. Protection (German TR) Chemical performance Fire Performance Impact absorption German "TR"	
	The visor is tested according to 3.2 Chemical behaviors in accordance with TR 05/2010 (sodium hydroxide, hydrochloric acid, sulphuric acid, acetone, white spirit, super petrol and foaming agent) and 3.3 Burning behaviors (according to DIN EN 137 No. 7.4.1.4) of TR 05/2010.	
Design	Bevelled	
Dimensions	8 x 120 mm	
Weight	570 ± 50g / 1.26 ± 0.11 lbs	
Warranty 5 years for Visors		

VISOR - VPAM 2 - 120mm



Benefits

Innovative edge protection solution for additional fire protection and reduced fragment discharge

Fixed on the helmet via quick change system or screwed system

Available with the following accessories:

- Anti-fog foil
- Anti-scratch foil
- Visor protection cover



Technical facts

Ballistic Protection	•	VPAM 2 VPAM 2 VPAM 2 VPAM 2 9 mm x 19, DM 41, 1246.7 ± 32.8 ft/s (380 ± 10 m/s)	
STANAG 2920 V50 (Fragmentation)		>1378 ft/s (>420m/s)	
Further protection	\bigcirc	Add. Protection (German TR) Chemical performance Fire Performance Impact absorption The visor is tested according to 3.2 Chemical behaviors in accordance with TR 05/2010 (sodium hydroxide, hydrochloric acid, sulphuric acid, acetone, white spirit, super petrol and foaming agent) and 3.3 Burning behaviors (according to DIN EN 137 No. 7.4.1.4) of TR 05/2010.	
Design		Bevelled	
Dimensions 16 x 120 mm		16 x 120 mm	
Weight		750 ± 50g / 1,65 ± 0.11 lbs	
Warranty	2	5 years for Visors	

VISOR - VPAM 3 - 120mm

ULBRICHTS PROTECTION

Benefits

Innovative edge protection solution for additional fire protection and reduced fragment discharge

Fixed on the helmet via quick change system or screwed system

Available with the following accessories:

- Anti-fog foil
- Anti-scratch foil
- Visor protection cover



Technical facts

Ballistic Protection	VPAM 3 HVN 2009 9 mm x 19, DM 41, 1362 ± 32.8 ft/s (415 ± 10 m/s)	
STANAG 2920 V50 (Fragmentation)	>2230 ft/s (>680m/s)	
Further protection	Add. Protection (German TR) Chemical performance Fire Performance Impact absorption The visor is tested according to 3.2 Chemical behaviors in accordance with TR 05/2010 (sodium hydroxide, hydrochloric acid, sulphuric acid, acetone, white spirit, super petrol and foaming agent) and 3.3 Burning behaviors (according to DIN EN 137 No. 7.4.1.4) of TR 05/2010.	
Design	Bevelled	
Dimensions	20 X 120 mm	
Weight	1.090 ± 50g / 2,40 ± 0.11 lbs	
Warranty	5 years for Visors	

VISOR - VPAM 3 - 150mm (S)



Benefits

Innovative edge protection solution for additional fire protection and reduced fragment discharge

Fixed on the helmet via quick change system or screwed system

Available with the following accessories:

- Anti-fog foil
- Anti-scratch foil
- Visor protection cover



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Ballistic Protection	VPAM 3 HVN 2009 9 mm x 19, DM 41, 1362 ± 32.8 ft/s (415 ± 10 m/s)	Ø
STANAG 2920 V50 (Fragmentation)	>2230 ft/s (>680m/s)	
Further protection	Add. Protection (German TR) Chemical performance Fire Performance Impact absorption The visor is tested according to 3.2 Chemical behaviors in accordance with TR 05/2010 (sodium hydroxide, hydrochloric acid, sulphuric acid, acetone, white spirit, super petrol and foaming agent) and 3.3 Burning behaviors (according to DIN EN 137 No. 7.4.1.4) of TR 05/2010.	Ø
Design	Straight	
Dimensions	20 x 150 mm	
Weight	1.400 ± 50g / 3,09 ± 0.11 lbs	
Warranty	5 years for Visors	

VISOR - VPAM 3 - 150mm (B)



Benefits

Innovative edge protection solution for additional fire protection and reduced fragment discharge

Fixed on the helmet via quick change system or screwed system

Available with the following accessories:

- Anti-fog foil
- Anti-scratch foil
- Visor protection cover



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Ballistic Protection	• j	PAM 3 HVN 2009 9 mm x 19, DM 41, 1362 ± 32.8 ft/s	VPAM 3 HVN2009 (415 ± 10 m/s)
STANAG 2920 V50 (Fragmentation)	>	2230 ft/s (>680m/s)	
Further protection	T a a fo	dd. Protection (German TR) Chemical performance Fire Performance mpact absorption he visor is tested according to 3.2 Chemica ccordance with TR 05/2010 (sodium hydro cid, sulphuric acid, acetone, white spirit, su paming agent) and 3.3 Burning behaviors (a N 137 No. 7.4.1.4) of TR 05/2010.	oxide, hydrochloric uper petrol and
Design	В	Bevelled	
Dimensions	2	20 X 150 mm	
Weight	1	1.330 ± 50g / 2,93 ± 0.11 lbs	
Warranty	§ 5	5 years for Visors	

Neck Protector - Anti Impact



Benefits

Minimizes the gap between the protective vest and the helmet for seamless protection against threats from the back.

Fixed on the helmet rim via Velcro
Anti-Impact protection
Cast iron proof



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Further protection	\odot	Add. Protection (German TR) Chemical performance Fire Performance Impact absorption The visor is tested according to 3.2 Chemical behaviors in accordance with TR 05/2010 (sodium hydroxide, hydrochloric acid, sulphuric acid, acetone, white spirit, super petrol and foaming agent) and 3.3 Burning behaviors (according to DIN EN 137 No. 7.4.1.4) of TR 05/2010.
Weight		140 ± 50g / 0,31 ± 0.11 lbs
Warranty	Š	5 years

Neck Protector - VPAM 3



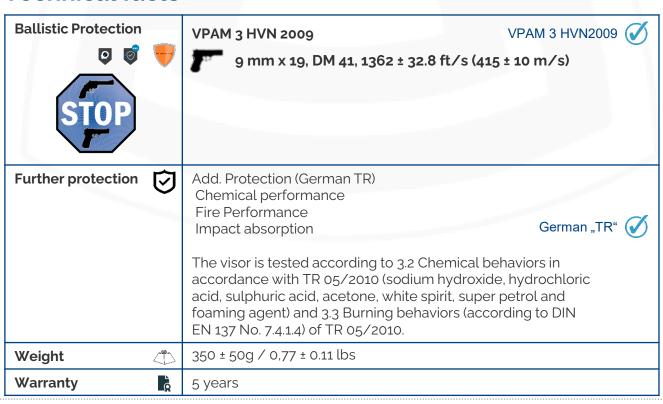
Benefits

Minimizes the gap between the protective vest and the helmet for seamless protection against threats from the back.

Fixed on the helmet via Velcro
Anti-Impact protection
Cast iron proof
Ballistic protection



Technical facts



Neck Protector - VPAM 4



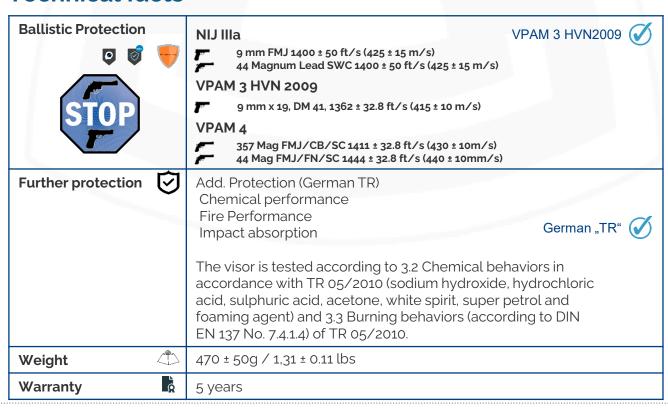
Benefits

Minimizes the gap between the protective vest and the helmet for seamless protection against threats from the back.

Fixed on the helmet via Velcro
Anti-Impact protection
Cast iron proof
Ballistic protection



Technical facts





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SUPPORTING DOCUMENTS



FACT SHEETS

WHAT'S TRAUMA / BFD



A BALLISTIC HELMET - FOR TRUE LIVE SAVING HEAD PROTECTION - HAS TO DO TWO THINGS:



PREVENTING A SEVERE BACKFACE DEFORMATION LEADING TO A LETHAL BRAIN TRAUMA





THE DIFFERENCE BETWEEN ULBRICHTS HELMETS AND CLASSICAL "NIJ" HELMETS:

ULBRICHTS HELMET



Most part of the helmet provides true protection against bullets.

STANDARD NIJ HELMET



The red area does not protect against penetration.
The yellow area does not protect against BFD/Trauma.

If a bullet is stopped by the helmet surface (no penetration), the energy needs to be absorbed as much as possible to minimize the "punch" on the skull.

This is called - Residual Kinetic Energy

TRAUMA Prevention is only given if the helmet reduces the residual energy transferred to the head because of the **backface deformation** to **below 25 Joule** at 1,97 inches (50 mm) from the rim.

NIJ recommends using BFD measurement but does not specify maximum values to succeed in the test.

This is only a standardized requirement by VPAM HVN2009 tested on soap heads.

What is true protection? BALLISTIC STANDARD COMPARISON



Standard	VPAM HVN 2009	NIJ
	"Helmet, Visor and Neckprotection"	"NIJ Standard for Ballistic Helmets"
Organization	Association of Test Centres for attack-resistant materials and constructions (VPAM)	National Institute of Justice (NIJ)
"Lingo"	"VPAM"	"NIJ IIIA"
Date of Last Revision	2017	1981
	Ulbrichts Helmets	"NIJ III A helmets"
Penetration Protection		
1 shot each from front/back/ left/right, shots must be 2 inches (50 mm) to the edge/rim	V	V
6 shots on weekest spots, shots must be 0.8 inch (20 mm) to the edge/rim		X
Shots on all bolts	▼	X
Tested at temperatures of the	helmet	
-4°F (-20°C)	V	X
68°F (20°C)	V	V
158°F (70°C)	V	X
Backface Deformation, Traum	na	
Remaining Motion Energy < 25 Joule, correlates to approx. 12mm/0.5 inches Backface Deformation		X 😭
Scan me for more information	Most part of the helmet provides true protection against bullets.	The red area does not protect against penetration. The yellow area does not

protect against BFD/Trauma.

WHY WE TEST ACC. VPAM

Golden Standard for True Protection



VPAM HVN 2009 describes requirements, classifications and test procedures for bullet-resistant

- Helmets (Bullet-resistant helmets)
- Visors (Bullet-resistant visors)
- Neck guards / Neck protectors (Bullet-resistant neck guards)
- → THE BENEFIT: VPAM guarantees reproducible results and allows for objective product comparison.

Test samples

- Helmet: A helmet with a complete set of internal equipment (SIZE 62)
- Visor: A visor affixed to the relevant helmet
- Neck guard: A neck guard which is affixed to the relevant helmet



A measuring head made of ballistic soap must be used to determine the residual energy transferred to the head in the event of non-impact of a helmet.

The transferred energy is determined by measuring the volume of the dent formed in the measuring head by the helmet bulging.

Conditioning of the test samples

The test samples must be conditioned in equal parts for at least 16 hours before the test at

- - 20 ± 2 °C
- + 20 ± 2 °C and 65 + 5 % rel. air humidity
- + 70 ± 2 °C

THE HELMET

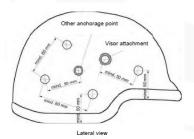
5 STRIKES at pre-defined positions **+ 1 ADDITIONAL STRIKE** TO BE CHOSEN BY THE PERSON RUNNING THE TEST

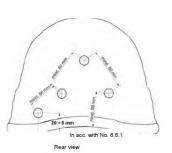
THE VISOR

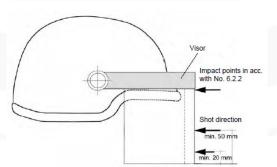
2 STRIKES at pre-defined positions
→ MULTI-HIT

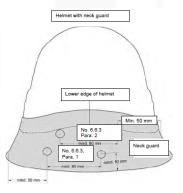
THE NECK GUARD

2 STRIKES at pre-defined positions
→ MULTI-HIT









WHY WE TEST ACC. TR Only true Protection saves lives



The Technical Guideline "Ballistic helmet" overall system is an additional specification to the VPAM HVN 2009 for

- Helmets (Bullet-resistant helmets)
- Visors (Bullet-resistant visors)

THE BENEFIT: TR guarantees additional to the VPAM APR2006 reproducible results and allows for objective product comparison.

Additional to the VPAM HVN 2009

If the helmet is furnished with ear protection and/or a hearing/speaking set, the helmet manufacturer must have it verified by shooting whether injuries can occur to the head area as a result of integrated and/or added on additional equipment.

The residual energy must be ascertained in accordance with HVN 2009.

Chemical behavior

- Sodium hydroxide 40 %
- Hydrochloric acid 36 %
- Sulphuric acid 30 %
- Acetone 100 %
- Turpentine substitute (white spirit 145/200, CSA-no. 64742-82-1)
- Super grade petrol (unleaded) in accordance with DIN EN 228, any make (retained sample)
- Foaming agent AFFF6 must be mixed with water in accordance with the regulation (3%) and not foamed up.

Combustion behavior

- Testing of combustion behavior (flame resistance) must be conducted in accordance with DIN EN 137
- melt (with the exception of preliminary melting at the visor edge and on the visor clasps)
- drip off
- combust
- break open (including the seams)
- be subject to afterburn for more than 2 seconds
- be subject to afterglow for more than 2 seconds
- shrink by more than 3%.

Shock absorption (DIN EN 397)

Labelling (unique ID)

Functional test

The helmet and visor/facial protection must be ascertained whether sharp or protruding edges. The webbing of the safety clasp on the chin strap and the visor/facial protection must be subjected to a functional test.

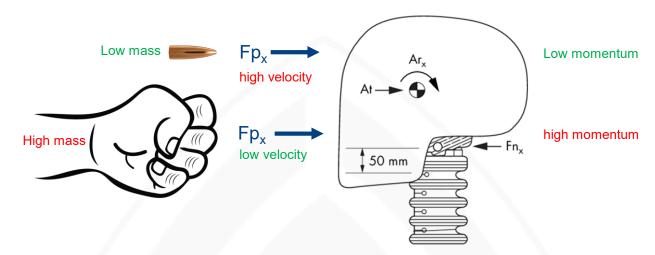
Long-term behavior

- HELMET: 10 years (with storage and use in accordance with the instructions for use)
- Visor/facial protection: 5 years

WHY A RIFLE BULLET HIT DOES NOT BREAK A NECK

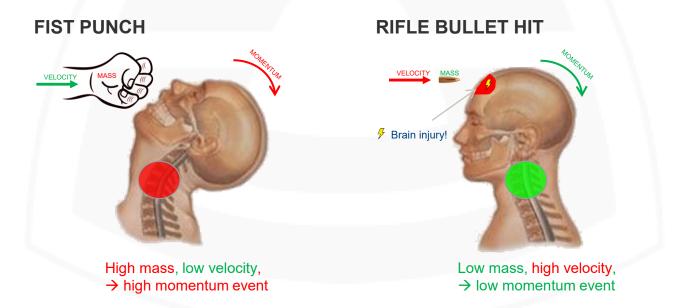


It's a myth! - rifle bullets won't break a neck if they are stopped by a helmet



The energy transferred to the head is heavy, but due to the low mass and the small surface of the bullet impact, the momentum Fn_v is low!

This means: a fist bump or an American football player's impact on the head has a higher momentum than a rifle bullet!



THE MOMENTUM OF A RIFLE BULLET IS LOW, BUT THE BRAIN INJURY CAN LEAD TO A LETHAL BRAIN TRAUMA DUE TO THE HIGH VELOCITY TO BE ABSORBED BY THE HELMET

THEREFORE, HELMETS HAVE TO DO TWO THINGS:



PREVENT A SEVERE BACKFACE DEFORMATION LEADING TO A LETHAL BRAIN TRAUMA

TRUE PROTECTION SAVES LIVE

TO PROTECT THOSE, WHO PROTECT US



WHO WE ARE

ULBRICHTS Protection at Schwanenstadt (Upper Austria), a business division of ULBRICHTS GmbH, develops and produces ballistic titanium and titanium-hybrid helmets. Police officers, so-called first responders, special police forces, and military special forces are already trusted in ULBRICHTS. The company is recognized as a ballistic head protection pioneer, regularly setting standards in true protection, comfort, and design.

TITAN-HYBRID HELMETS FROM ULBRICHTS PROTECTION

Worldwide best head protection against handgun and rifle bullets

ULBRICHTS-Helmets are the first choice of 80% of German police officers plus many other European police and military special forces. As the threat changed from handgun to rifle ammunition, protection helmets must do two things:

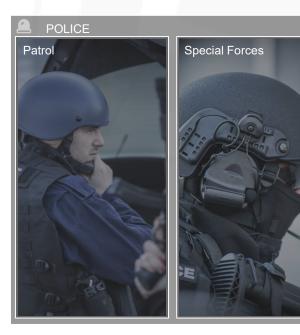
- 1. STOP the bullet,
- 2. Prevent a severe backface deformation leading to death.

ULBRICHTS helmets are the only helmets to protect those who protect us.

NEW INNOVATION

ULBRICHTS Protection enables easy procurement of their helmets since they have a one-size-fits-all policy regarding the helmets. This makes it easier for them to provide the soldiers with true protection since one helmet fits every head.

The new generation also comes without any bolts and screws, which allows them to prevent secondary shrapnel. This innovation also fits with the company's mission to provide police officers and soldiers with true protection from every angle.











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PROTECTION



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