



K-5 HELMET



K-5 is the most recent innovation in the *AGV Extreme Standards* line of helmets and sets a new standard for AGV sports and road helmets. The outer shell is made entirely from fibreglass and carbon fibre to achieve maximum strength from a truly lightweight helmet. While the design flaunts its outstanding aerodynamics in thoroughbred AGV style.



Valentino Rossi,
MotoGP™ rider



AGV EXTREME STANDARDS



THE K-5 HELMET IS AN ACHIEVEMENT OF AGV EXTREME STANDARDS, A PROCESS INNOVATION THAT HAS REVOLUTIONISED HELMET DESIGN IN A WAY THAT IS DEMONSTRABLE AND MEASURABLE IN TERMS OF: PROTECTION, ERGONOMICS, COMFORT, RELIABILITY AND ENVIRONMENTAL IMPACT. HARNESSING THE POWER OF FINITE ELEMENTS METHOD (FEM) ANALYSIS, AGV HAS DEVELOPED A BENCHMARK PRODUCT FOR SAFETY, COMFORT AND AERODYNAMICS.

SPECIFICATIONS

- 2 sizes of composite fibre outer shell (fibreglass and carbon fibre)
- 4 sizes of expanded polystyrene (EPS) inner shell with 4 different densities
- Dimensions of outer shell and EPS inner shell optimised using Finite Elements Method (FEM) analysis
- Ventilation system: IVS Integrated Ventilation System with one chin bar air intake, 2 front inlet vents and an outlet vent with on/off system. Designed in a wind tunnel to optimise air flow and stability
- Central front air intake recessed in outer shell profile with a high-capacity direct duct
- Rear spoiler integrated in outer shell profile
- Ready for Share, AGV's communication system
- Fabric: Sanitised Dry-Comfort
- Linings: completely removable
- Removable breath deflector
- Removable neck padding
- Removable wind-shielding chin curtain
- Visor mechanism: new visor mechanism with patented GT-2 XQRS Extra Quick Release System for rapid removal
- Micro-opening demist system
- Scratch-resistant anti-fog polycarbonate visor with 100% UV protection - GT2-1 (Sz. XS-S-MS) and GT2 (Sz. ML-L-XL-XXL)
- Scratch-resistant ISV integrated sun visor with tool-free removal and replacement
- Double metal D-ring retention system
- Sizes: XS - S - MS - ML - L - XL - XXL
- Approvals: ECE, ECE/DOT, NBR, AS-NZS, JIS, ECE-ASIA
- Weight (ECE 22.05): 1,390g (+/-50g) in Sz. MS



FEATURES



AGV EXTREME STANDARD FEATURES

KEY FEATURES



The shape, contours and materials have been designed and optimised using dedicated FEM analysis software that simulates how the structure of the helmet responds to impacts.



The aerodynamics have been validated using wind tunnel testing.



Patented XQRS Extra Quick Release System visor mechanism that allows immediate tool-free visor removal and replacement.



Visor with micro-opening demist system.



Integrated spoiler.



Aerodynamics optimised using dedicated Computational Fluid Dynamics (CFD) simulation software.



Increased peripheral vision.



Easy action Sun Visor.



Central air intake providing optimal ventilation.



Closable rear outlet vents.

MAIN FEATURES



Composite fibre outer shell (fibreglass and carbon fibre).



2 outer shell sizes.



4 expanded polystyrene (EPS) inner shell sizes.



Double metal D-ring retention system.



Dry Comfort fabric lining.



Sanitised linings.



Removable and washable linings.



Sun visor.



IVS Integrated Ventilation System with ducts incorporated directly in the outer shell.

K-5: TECHNOLOGY AND PASSION

*AGV brings its
race experience
to a sports road
helmet that delivers
outstanding
performance
and comfort.*



*Luis Salom,
Moto2 rider*

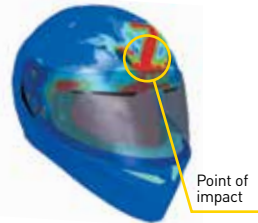
SAFETY

The K-5 has been designed using Finite Elements Method (FEM) analysis, which makes it possible to perform crash test and helmet strength simulations before making the physical moulds. This sophisticated method has enabled us to achieve a helmet that is light and compact, yet simultaneously offers outstanding impact absorption, with safety margins that comfortably exceed the requirements of the ECE 22.05 standard.



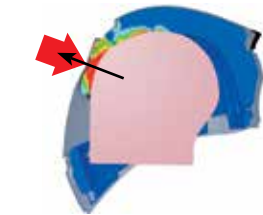
ABSORPTION

This diagram of a cross-section of the inner shell after the same impact shows the impact absorption of the helmet after a 150 Joule frontal impact at a speed of 7.5 m/s (ECE 22.05). The outer shell areas that absorb the most energy are shown in red.



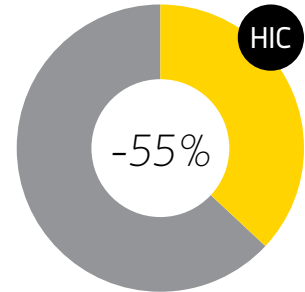
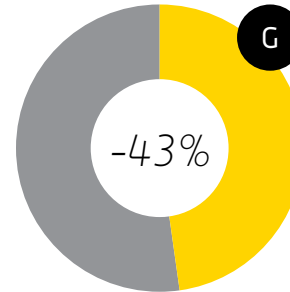
COMPRESSION

This diagram of a cross-section of the inner shell after the same impact shows a cross-section of the inner shell after the same impact and shows how its EPS construction spreads the impact force over a larger area (rather than concentrating it in a single point). It's important to note that even areas quite far from the impact are subject to crushing forces (the areas coloured blue are not subject to compression while the red areas are those subject to most compression).



➔ ECE 22.05 kerbstone anvil
➔ Direction of impact velocity (v=7.5 m/s to ECE 22.05)

A LIGHTER, SAFER FIBRE HELMET



PERCENTAGES REFER TO THE LIMITS SPECIFIED IN THE EEC STANDARD

G refers to the deceleration of the head and HIC stands for Head Injury Criterion, which is a measure of the likelihood of head injury arising from the deceleration forces of an impact.



4 EPS
ZONES WITH
DIFFERENT
DENSITIES FOR
MAXIMUM
IMPACT
PROTECTION

COMPACT STRENGTHS

RACE-INSPIRED INTEGRATED SPOILER FOR SUPERIOR AERODYNAMICS



BASE PROFILE CONTOURED AROUND THE SIDES TO REDUCE THE RISK OF COLLAR BONE INJURIES IN A CRASH



INTEGRATED SPOILER



MAXIMUM PROTECTION WITH MINIMUM BULK

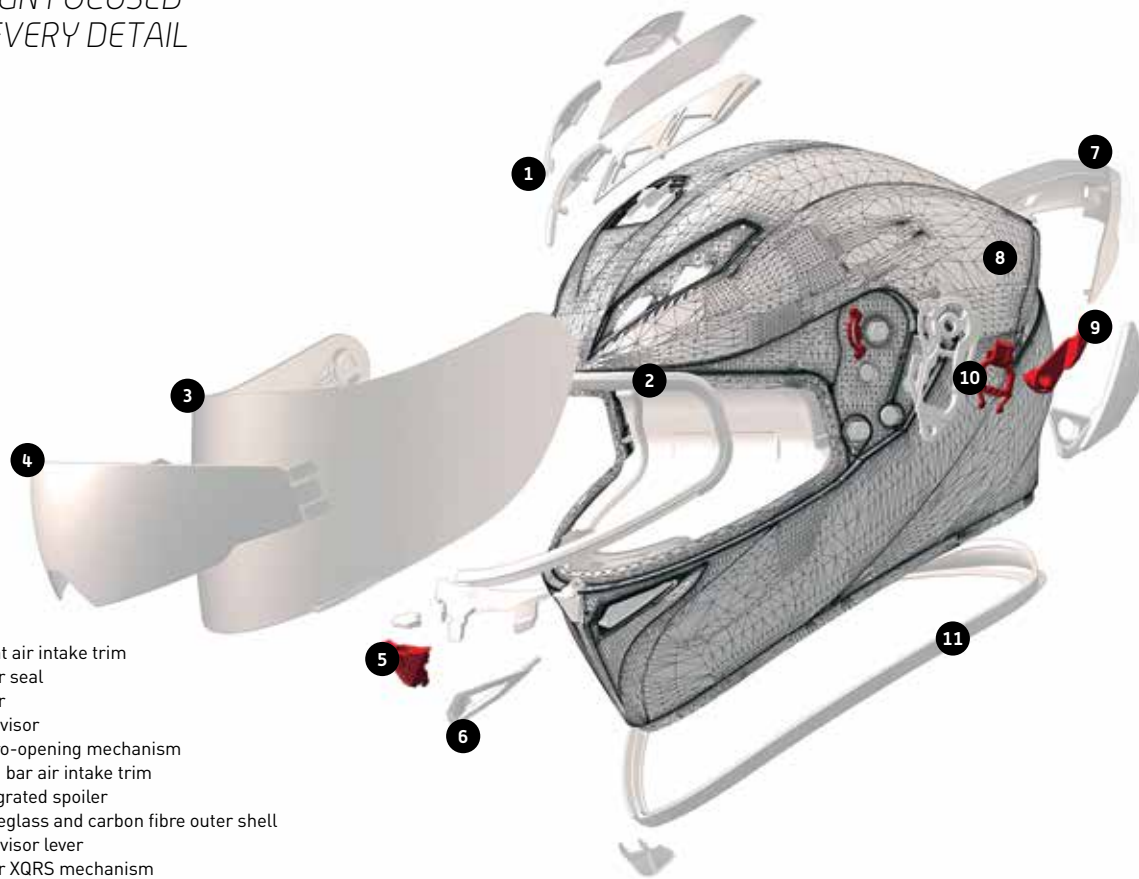
In line with our AGV Extreme Standards, the helmet's structural elements have been designed to obtain the high performance we set out to achieve while keeping size and weight to a minimum.

As a result, the whole helmet is lighter and more compact despite

offering substantially improved protection, ergonomics and comfort. A helmet that follows the contours of your head snugly without applying excessive pressure is a safer helmet, because it allows you to keep concentrating on the road.



*DESIGN FOCUSED
ON EVERY DETAIL*

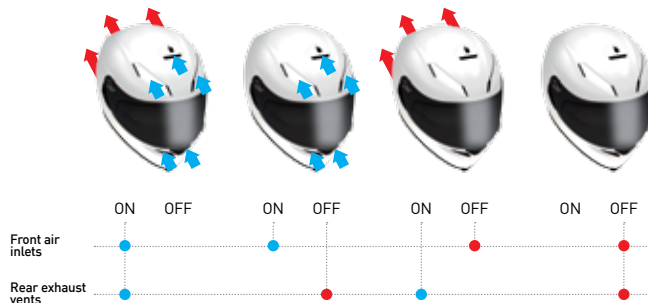


- 1 Front air intake trim
- 2 Visor seal
- 3 Visor
- 4 Sun visor
- 5 Micro-opening mechanism
- 6 Chin bar air intake trim
- 7 Integrated spoiler
- 8 Fibreglass and carbon fibre outer shell
- 9 Sun visor lever
- 10 Visor XQRS mechanism
- 11 Base trim

VENTILATION AND AERODYNAMICS

The ventilation system - designed using Computational Fluid Dynamics (CFD) - features ducts incorporated directly in the outer shell to provide more effective airflow inside the helmet and achieve superior aerodynamic performance.

With two front vents, one on each side, plus a new large central air intake, you benefit from a constant flow of fresh air inside the helmet. The ample exhaust vents use ducts in the EPS inner shell to draw hot and humid air away from your head and efficiently out of the helmet. In addition, they feature open/close adjusters to increase their efficiency.



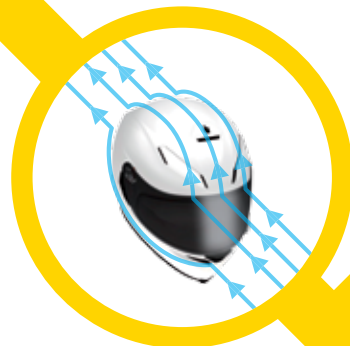
IMPROVED DYNAMIC COMFORT

A compact rear spoiler integrated in the outer shell reduces turbulence and improves the aerodynamic drag coefficient (Cx).



The narrow streamlined chin bar improves aerodynamic penetration, increasing the high-speed stability and safety of the helmet.

Wind tunnel testing and input from professional riders have optimised the aerodynamics of this new generation helmet.

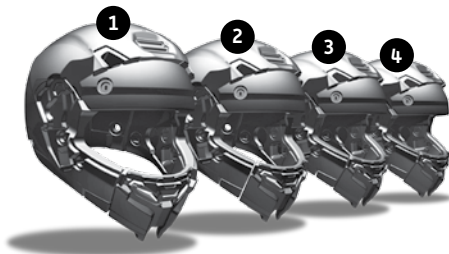


FIT AND COMFORT



SHELL

With an outer shell that comes in 2 sizes and an inner shell that comes in 4 sizes with 4 different densities of EPS, the K-5 combines compact dimensions with outstanding fit and comfort. The optimised weight reduces neck fatigue.



LININGS

The K-5's linings are all removable and washable with the exception of the neck pad, and feature Sanitised Dry-Comfort fabric to counter bacteria and allergies.

What's more, the linings boast 3 different densities of foam, tailored to suit the part of your head or face covered.

In addition, the top liner has been optimised to absorb heat and conduct it to the exhaust vent ducts. While the neck pad is integrated in the helmet for improved comfort and lower noise levels. Lastly, the linings feature special grooves for glasses.

All these design features combine to bring you exceptional fit and outstanding comfort.

FIELD OF VISION



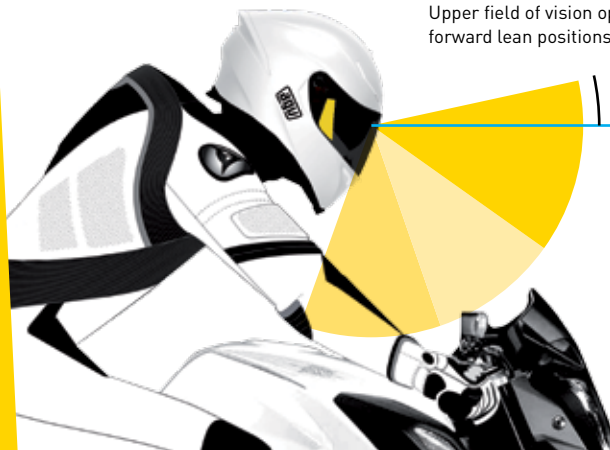
INCREASED PERIPHERAL VISION

Side vision is greater than on traditional sports and road helmets thanks to the specially-shaped bottom profile of the aperture, greatly enhancing active safety.



INCREASED FORWARD LEAN VISION

Upper field of vision optimised for forward lean positions.





VISORS



The visor mechanism features our XQRS Extra Quick Release System that enables tool-free visor changes in seconds.

The GT2 scratch-resistant anti-fog polycarbonate visor is rated optical class 2 and provides 100% UV protection. And it's available in 2 sizes to ensure a close fit whatever the helmet size.

In addition, the visor features a new micro-opening demist system operated by a quick-action button on the chin bar that boosts the airflow substantially above the level provided by the air intake vents. The K-5 comes complete with a scratch-resistant integrated sun visor which offers easy tool-free removal for cleaning and replacement.

GT2-1				GT2			
XS	S	MS	ML	L	XL	XXL	

GT2 VISORS



ISV INTEGRATED SUN VISOR



GT2 VISORS



GT2 Blue



GT2 Clear



GT2 Iridium Blue



GT2 Iridium Gold



GT2 Iridium Silver



GT2 Rainbow



GT2 Tinted



GT2 Yellow

ISV INTEGRATED SUN VISOR



ISV Iridium Blue



ISV Iridium Gold



ISV Iridium Silver



ISV Tinted 50%



ISV Tinted

GRAPHICS



Dimension



The Cube

Deep



Transformer



Roadracer



Hurricane



Diapason 2



White



Black



Matt Black



SHARE SYSTEM READY

The K-5 is ready for Share, AGV's integrated communication system that allows riders to chat with their passengers (wearing a helmet with communication system) and connect to their mobile phones and other Bluetooth® peripheral devices, including Sat Navs. Share boasts 97.5% less electromagnetic radiation than the limit specified in the relevant standard and bike-to-bike communication devices.

FUNCTIONS



Rider and passenger intercom



Mobile phone connection (highest priority)



Wireless GPS connection



Wireless or wired MP3 music player connection



RDS FM radio

FEATURES



Audio menu guide in 10 languages



Firmware updates downloadable from agv.com



Waterproof

SAFETY



Advanced battery protection system
Talk time: 11 h
Stand by: 700 h



~97.5% electromagnetic radiation compared to the limit specified in the relevant standard and bike-to-bike communication devices



Auto-volume adjustment



- Low electromagnetic radiation
- Advanced battery protection system
- Waterproof



- Easy to install
- Easy to use
- Maximum comfort

CUSTOM FIT

The fit of our AGV EXTREME STANDARDS helmets benefits from a new “Human Engineering” process.

This process designs the helmet around the human head, starting from the structural components that are in direct contact with the head itself. The lining of a traditional helmet is normally made from materials that are sewn together to form a flat component. This construction can cause discomfort due to stitching that comes into direct contact with the head and creases that can form when the helmet is worn.

With AGV EXTREME STANDARDS, the comfort lining is a concave three-dimensional structure that is preformed to the shape of the head,

and the seams are positioned so that there is no stitching in direct contact with the head. The linings boast 3 different densities of foam to suit the part of your head or face covered. As a result, you get comfort that's in a class of its own.

ADJUSTABLE FIT

The inner shell, outer shell and cheek pads are made in different sizes and thicknesses to optimise the fit. So you can obtain the best fit for you:

- all the top liners for a given size of EPS shell are interchangeable
- all the cheek pads for a given outer shell size are interchangeable.

The customisation choices available are shown in the tables alongside.

SIZES AVAILABLE/ SIZE COMBINATIONS

OUTER SHELL	1			2			
EPS	EPS 1		EPS 2	EPS 3		EPS 4	
SIZE (CM)	XS 53-54	S 55-56	MS 57	ML 58	L 59-60	XL 61-62	XXL 63-64
CHEEK PAD THICKNESS (mm)	28	24	20	28	24	20	16
TOP LINER THICKNESS (mm)	12	8	8	12	8	12	8

CHEEK PAD OPTIONS

SIZE	XS	S	MS	ML	L	XL	XXL
ORIGINAL THICKNESS (mm)	28	24	20	28	24	20	16
INCREASED THICKNESS (mm)	-	28	24/28	-	28	24/28	20/24/28
REDUCED THICKNESS (mm)	24/20	20	-	24/20/16	20/16	16	-

TOP LINER OPTIONS

SIZE	XS	S	MS	ML	L	XL	XXL
ORIGINAL THICKNESS (mm)	12	8	8	12	8	12	8
INCREASED THICKNESS (mm)	-	12	-	-	12	-	12
REDUCED THICKNESS (mm)	8	-	-	8	-	8	-



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AGV.COM

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