



FALL 2018

A U S T R A L I A N
D E A L E R B O O K I N G P R O G R A M



FIND OUT MORE AT:

stevecramerproducts.com

[/stevecramerproducts](https://www.facebook.com/stevecramerproducts)

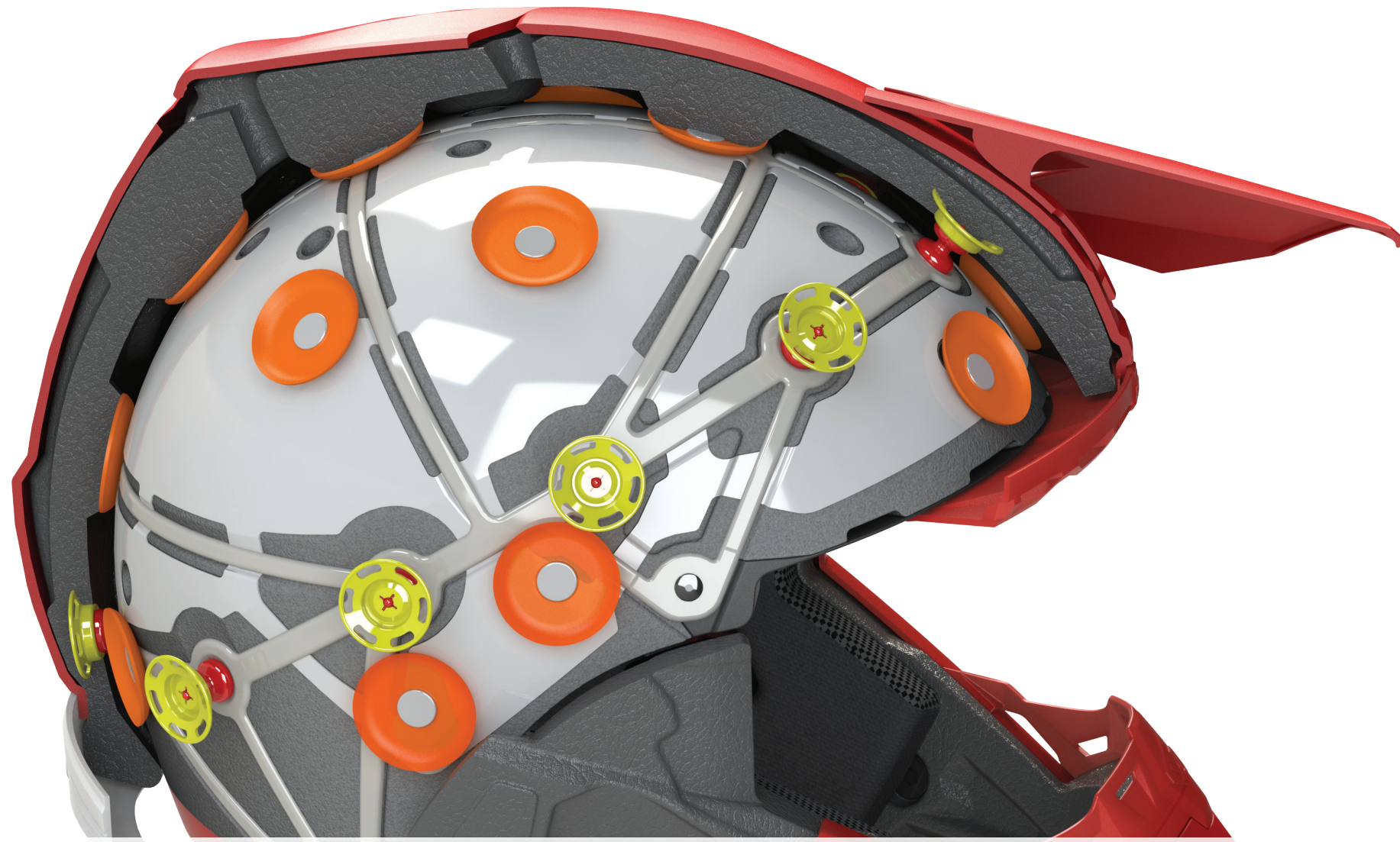
[@stevecramerproducts](https://www.instagram.com/stevecramerproducts)

sales@stevecramerproducts.com.au

[03 9587 1466](tel:0395871466)



ONLY 6D HAS
OMNI-DIRECTIONAL
SUSPENSION



A HELMET WITHIN A HELMET

DEDICATED TO THE RELENTLESS PURSUIT OF BRAIN PROTECTION.

6D's revolutionary Omni-Directional Suspension technology has single-handedly inspired the helmet industry to get serious about improving helmet design. Today, nearly 7 years later, a few manufacturers have responded with improved offerings while others rely on marketing hype and brand strength to communicate their interests. Still others have ignored the opportunity to improve their products all together!

6D's proprietary Omni-Directional Suspension (ODS) was the catalyst for these alternate methods of protection making their way to the market and remains the top performing technology available today. Simply stated, ODS is "Suspension For Your Head".

- ODS reduces energy transfer to the brain by means of its suspended inner liner
- ODS uncouples the inner liner from the outer liner and shell assembly
- ODS reduces both angular and linear accelerations, at all impact velocities and all impact angles
- ODS significantly improves low-threshold impact mitigation
- ODS is not constrained by the shape of the human head (unlike every other system that is mated to the inner surface of the helmet liner including MIPS, Flex, Turbo 360, LDL, Meds, Fluid, Pod, etc.)
- ODS is rebuildable in select models*



EDUCATION IS KEY:

We encourage you to explore the benefits of ODS and how it compares to traditional helmet designs as well as the emerging technologies from other manufacturers. 6D's patented ODS dual-liner system is the only technology providing significant reductions in angular acceleration while simultaneously reducing low-threshold energy transfer to the brain.

6D's ODS technology is so impressive in fact, that it was awarded the \$500k Grand Prize in the NFL's Head Health Challenge III in 2017. Achieving this award of recognition and success within the Head Health Challenge further validates the excellent properties and benefits of the ODS technology.

OMNI-DIRECTIONAL SUSPENSION (ODS) - EXCLUSIVE IN 6D.

6D's Omni-Directional Suspension (ODS) technology is the key to what sets the 6D helmet apart from any other helmet or helmet technology available. ODS reduces energy transfer to the brain by means of its suspended dual-liner system, effectively providing a helmet within a helmet.

WORLD WIDE PATENTS:
United States US 8,955,169 B2
United States US 9,820,525
Europe E2 672 853 B1
China ZL 201280017579.1

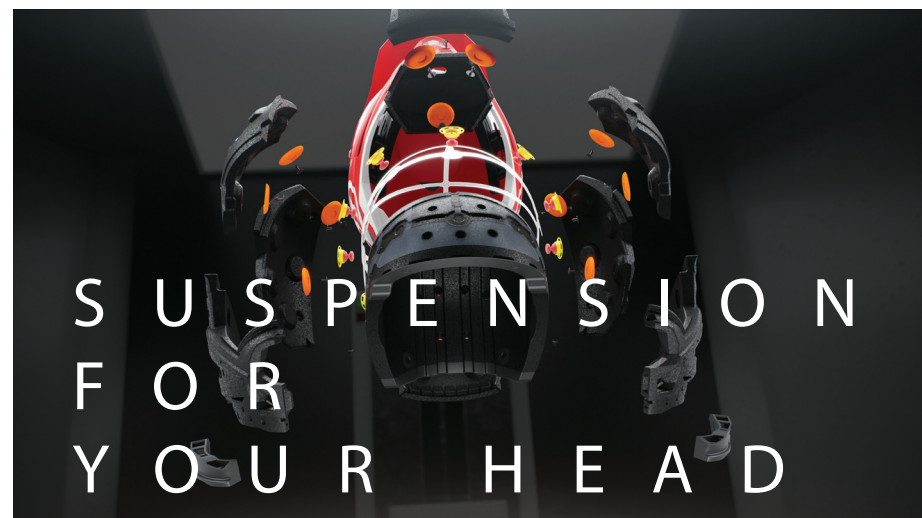
ODS COMPARED TO COMPETING NEW TECHNOLOGIES:

Competing manufactures have scrambled since the introduction of the 6D helmet to address the need for improved helmet performance. The challenge for each of them is the natural shape of the human head. Its oval shape restricts the helmet from slipping in relation to the skull in two of the three primary axis X, Y and Z. This is because the inner surface of the helmet's liner binds under rotation with the 4 corners of the skull in one direction, and the cheek bones and jaw in the other direction.

For example, shear-plane technology (such as MIPS) mated to the helmet's inner liner surface is designed to improve the amount of slip that your head naturally has within the helmet. If the head cannot move very far (because it's fit properly) and the shape of the skull naturally constrains its movement, then these types of systems are restricted to how much effective work they can do in the athlete's benefit. Additionally, a 1-dimensional shear-plane (MIPS) solution has no ability to mitigate linear accelerations.

Other designs mated to the helmet liner's inner surface unfortunately face the same challenges of constraint. In general, they are bumpers with low standoff height providing little true shearing space and capability, especially if they are already compressed to some degree by the head form during the fitting process (which is highly likely). Most of these designs provide only a few millimeters of additional cushion, acting much like a comfort liner.

6D's ODS technology is designed with its shearable suspension system sandwiched between two energy absorbing compressible liners which are shaped more spherical, like a ball and socket. This superior positioning of the technology allows for 6-degrees (6D) of free-motion displacement during any impact, regardless of your head shape, the angle of impact, or how tight your helmet fits!

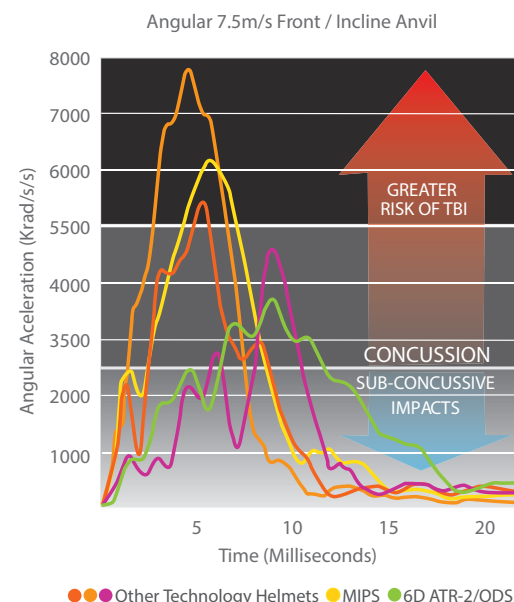


HOW OMNI-DIRECTIONAL SUSPENSION WORKS:

At the onset of any impact the ODS system's isolation dampers activate immediately addressing the forces applied to the helmet. The isolation dampers compress and shear in response to the impact thereby reducing the transfer of that force to the inner helmet, head form, and brain. If the force applied to the helmet is more extreme, the isolation dampers transition the energy management job to the two energy absorbing compressible liners which are designed to manage higher velocity impacts in a more traditional manner. This dual-liner system allows ODS to manage impact forces in a superior manner to the other competing technologies in the marketplace.

HELMET SIZE AND VOLUME

Don't be fooled by marketing hype. Think about it... In a crash event the head form is coming to an instantaneous extreme stop. You want to have this happen over the most time and distance possible to reduce the severity of the deceleration on the brain. A small shelled helmet obviously compromises this as the head will bottom out on the shell (causing accelerations to skyrocket) unless the manufacturer utilized extra stiff EPS to manage the extreme impact force. So while you might get a similar maximum "G" figure at the certification test velocity as a larger shelled helmet, the stiff EPS is grossly ineffective at managing energy at the lower velocities of most crash events.



ANGULAR ACCELERATION

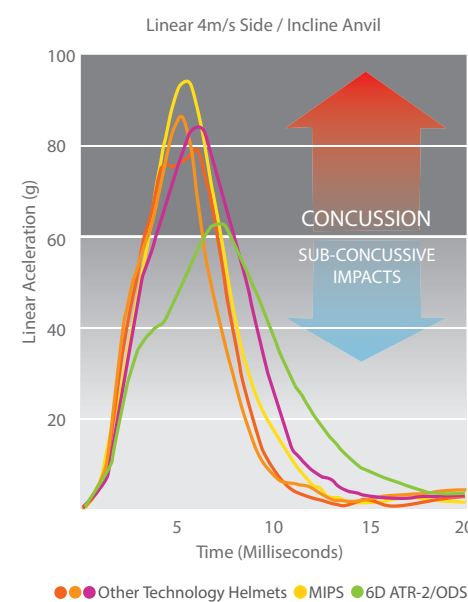
The medical community has determined that angular acceleration (rotational force generated during oblique-angle impacts) is the primary cause of concussion and traumatic brain injury.

Traditional helmets are directly “coupled” to the head preventing any ability to mitigate angular acceleration forces. Scientific laboratory testing proved that when subjected to identical impacts, a helmeted head sustained the same degree of angular acceleration as an un-helmeted head*.

ODS technology “uncouples” the helmet from the head form. The suspended dual-liner assembly compresses and shears omnidirectionally when subjected to oblique impacts thereby reducing the transfer of angular acceleration forces to the head and brain.

Competing technologies including MIPS, Flex, Turbo 360, LDL, Meds, Fluid Pod, etc. are all trying to uncouple the relationship of the head and the helmet. Each however, is challenged with the same issue; the natural oval shape of the human head. That shape restricts movement. While some of these technologies function better than others, none provide the well-rounded performance of Omni-Directional Suspension.

* Experiments conducted by David C. Viano, PhD, Bioengineering Center, Wayne State University.



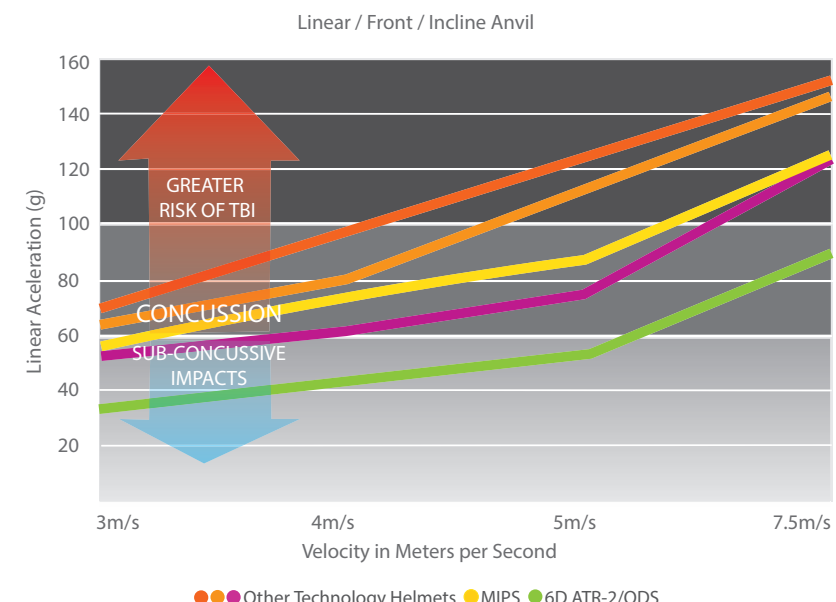
LOW-THRESHOLD ENERGY

Recent medical research has provided alarming conclusions surrounding the causes, severity, and long-term effects of concussions. Even seemingly minor concussions may have much more serious long-term effects on the brain. Repetitive low-velocity impacts are cumulative apparently causing buildup of tau proteins and deterioration of the brain's healthy condition.

To meet the various mandatory global certification standards' high-velocity requirements, helmets incorporating add-in shear plane technologies such as MIPS to address rotational force are still way too stiff to effectively absorb energy from impacts at lower velocities.

With this well noted, the vast majority of impacts one might experience in real-world accidents qualify as low-threshold energy impacts; impacts well below certification standards pass/fail velocities, but severe enough to sustain a concussion or a traumatic brain injury (TBI).

ODS starts working the instant any force is applied to the shell, making the helmet more compliant and progressive over the broad range of impact velocities experienced in the highest percentage of 'real world' crashes, while still exceeding the requirements of the global standards.



BROAD RANGE PROTECTION

Across the entire range of potential impact velocities, the 6D helmet with ODS technology consistently outperforms competitive designs. 6D extensively engineers the shell, liners, damper systems, and ODS to provide the best possible impact mitigation performance across all impact velocities for both angular and linear accelerations.

TIME-TO-PEAK (TTP)

Time-to-Peak (TTP) is how long it takes the energy of an impact to reach maximum G-force. Deceleration time is the single most beneficial component in reducing the severity and magnitude of any impact — the more time, the less energy transferred. ODS buys time during the impact event!



A T R - 1

T H E O R I G I N A L
G A M E C H A N G E R

IT'S ALL ABOUT THE BRAIN

ATR-1

A True Game Changer. The 6D ATR-1 off-road motorcycle helmet has changed the industry forever. Introduced in 2013 it was the first motorcycle helmet ever manufactured incorporating technology that reduced angular acceleration and low-threshold impact energy transfer to the brain during crash impact. This was accomplished by 6D's revolutionary Omni-Directional Suspension (ODS) system that was developed specifically to address the angular acceleration problem. 3-dimensional displacement capability of the inner EPS liner, relative to the outer EPS liner, provides a more forgiving helmet over a much greater range of energy demands than any other helmet.

The ATR-1 is certified to exceed US DOT FMVSS 218 and ASTM F3103 (US), ECE 22.05 (47 Countries World-Wide), AS 1698 (Australia) and ACU (UK) standards.



Rear Delta Vent - Aids heat transfer and comfort by scavenging air from within the helmet.

Shell- A proprietary blend of advanced aerospace carbon fiber, composite fiberglass, and Kevlar - plus 3K Carbon models.

3 Shell Sizes - Optimizes the size and weight ratio of the helmet while ensuring great fit for all head sizes XS - XXL.

New Visor Design - Increases both sun and roost protection.

Shear-Away Visor Screws.

Air Flow Management - 8 intake ports, 13 transfer ports, and 4 aggressive exhaust ports.

Large Eyeport Opening - Insures excellent fitment with all popular goggles.

Comfort Liner - Removable and washable, featuring Genuine CoolMax® anti-bacterial fabric.

Emergency Release Cheek Pads.

Contoured Roost Guard - Provides protection from rocks and roost.

Stainless Steel Screens - Protect all shell openings.

Replaceable Mouth Piece.

EPP Lined Chin-Bar - Provides additional face protection.

Sternum Pad - Provides added protection of the chin, jaw, and sternum in the event of an accident.

Clavicle Cut-Away - Provides increased clavicle clearance without sacrificing strength.

Crash Replacement / Rebuild Program - Contact 6D 714.772.2121

3-Year Limited Warranty

Weight -
+/- 1,585 grams.
3K Carbon -
+/- 1,495 grams.

Exceeds ECE, DOT, ASTM, AU, and AC standards.

ODS - Patented Omni-Directional Suspension Technology.

Integrated Traction Posts - At the eyeport combine with a shell recess to keep your goggle strap secure.



“ REVOLUTIONARY ”
- RACER X



ATR-1 FLIGHT GRAPHIC MATTE

	XS	S	M	L	XL	XXL
FLIGHT Black/Blue	10-3304	10-3305	10-3306	10-3307	10-3308	10-3309
FLIGHT White/Red	10-3314	10-3315	10-3316	10-3317	10-3318	10-3319
FLIGHT RedWhite/Blue	10-3334	10-3335	10-3336	10-3337	10-3338	10-3339

ATR-1

A True Game Changer. The 6D ATR-1 off-road motorcycle helmet has changed the industry forever. Introduced in 2013 it was the first motorcycle helmet ever manufactured incorporating technology that reduced angular acceleration and low-threshold impact energy transfer to the brain during crash impact. This was accomplished by 6D's revolutionary Omni-Directional Suspension (ODS) system that was developed specifically to address the angular acceleration problem. 3-dimensional displacement capability of the inner EPS liner, relative to the outer EPS liner, provides a more forgiving helmet over a much greater range of energy demands than any other helmet.

The ATR-1 is certified to exceed US DOT FMVSS 218 and ASTM F3103 (US), ECE 22.05 (47 Countries World-Wide), AS 1698 (Australia) and ACU (UK) standards.

“GAME CHANGER -
THE ATR-1 HAS FOREVER CHANGED THE WAY RIDERS - AND OTHER HELMET MANUFACTURERS - THINK ABOUT SAFETY ”
- TWMX



ATR-1
A True Game Changer. The 6D ATR-1 off-road motorcycle helmet has changed the industry forever. Introduced in 2013 it was the first motorcycle helmet ever manufactured incorporating technology that reduced angular acceleration and low-threshold impact energy transfer to the brain during crash impact. This was accomplished by 6D's revolutionary Omni-Directional Suspension (ODS) system that was developed specifically to address the angular acceleration problem. 3-dimensional displacement capability of the inner EPS liner, relative to the outer EPS liner, provides a more forgiving helmet over a much greater range of energy demands than any other helmet.
The ATR-1 is certified to exceed US DOT FMVSS 218 and ASTM F3103 (US), ECE 22.05 (47 Countries World-Wide), AS 1698 (Australia) and ACU (UK) standards.

ATR-1 FUSE GRAPHIC GLOSS

	XS	S	M	L	XL	XXL
Fuse Orange/Black	10-3454	10-3455	10-3456	10-3457	10-3458	10-3459
FUSE Yellow/Black	10-3464	10-3465	10-3466	10-3467	10-3468	10-3469



ATR-1 POINT GRAPHIC GLOSS

	XS	S	M	L	XL	XXL
POINT Red	10-3504	10-3505	10-3506	10-3507	10-3508	10-3509

ATR-1 SOLID GRAPHIC MATTE

	XS	S	M	L	XL	XXL
SOLID Black	10-3704	10-3705	10-3706	10-3707	10-3708	10-3709



ATR - 2

THE NEXT LEVEL

“ONE OF THE MOST ATTRACTIVE KEY FEATURES -
IS THE ABILITY TO REPLACE THE INNER EPS LINER IF IT
IS DAMAGED IN A CRASH”
- TWMX



ATR-2 AERO GRAPHIC MATTE

	XS	S	M	L	XL	XXL
Aero Red	12-0034	12-0035	12-0036	12-0037	12-0038	12-0039
Aero Grey	12-0074	12-0075	12-0076	12-0077	12-0078	12-0079
Aero Neon Yellow	12-0064	12-0065	12-0066	12-0067	12-0068	12-0069

The next level in brain protection. The 6D ATR-2 is the most advanced energy management device ever manufactured for off-road motorcycle competition or recreational riding. Infused with the exceptional DNA of the original ODS technology, but evolved to a whole new level with high-tech materials and design influenced by our work inside the NFL's Head Health Challenge III competition.

For ALL ATR-2 visors and accessories - see the price list order form

- Rebuildable Advanced ODS System:**
- Replaceable Inner EPS Liner*
 - Multi-Impact Outer EPP Liner
 - Progressive EPP Damping Towers
 - Low-Friction Disks
 - Isolation Dampers
 - Increased ODS Displacement Travel (+30%)
 - Improved Linear and Angular Acceleration Mitigation
- Shell:**
- Optimized light weight Tri-Composite Shell - 3 Shell Sizes
 - Cervical Protection Zone at the lower rear shell area
 - Brow Rib increases shell integrity above the eyeport
 - Clavicle Cut-Away
 - 9 Intake Ports and 6 Exhaust Ports work in unison with the Air Gap Ventilation System

- Helmet Features:**
- Removable, Washable Comfort Liner features Genuine Dri-Lex® anti-bacterial fabric
 - Emergency Quick-Release Cheek Pads
 - PU-Over Molded EPP Lined Chin Bar includes 6D's exclusive Sternum Pad
 - Goggle Band integrated shell recess at the eyeport area improves goggle fit and seal
 - Shear-Away Visor Screws
 - Nose Guard provides improved roost protection
 - Titanium D-Rings
 - Lighter overall weight +/- 1480 grams/ 3.26 lbs. (Size M)
 - Exceeds DOT, ECE, AC and ASTM Standards
 - 3-Year Limited Warranty



“6D REALIZED THERE WAS A NEED FOR A SAFER HELMET - ONE THAT PROTECTS THE BRAIN AS WELL AS THE SKULL”
- RACER X



ATR-2 AERO GRAPHIC MATTE

	XS	S	M	L	XL	XXL
Strike Yellow/Blue	12-0464	12-0465	12-0466	12-0467	12-0468	12-0469

The next level in brain protection. The 6D ATR-2 is the most advanced energy management device ever manufactured for off-road motorcycle competition or recreational riding. Infused with the exceptional DNA of the original ODS technology, but evolved to a whole new level with high-tech materials and design influenced by our work inside the NFL's Head Health Challenge III competition.

For ALL ATR-2 visors and accessories - see the price list order form

Rebuildable Advanced ODS System:

- Replaceable Inner EPS Liner*
- Multi-Impact Outer EPP Liner
- Progressive EPP Damping Towers
- Low-Friction Disks
- Isolation Dampers
- Increased ODS Displacement Travel (+30%)
- Improved Linear and Angular Acceleration Mitigation

Shell:

- Optimized light weight Tri-Composite Shell - 3 Shell Sizes
- Cervical Protection Zone at the lower rear shell area
- Brow Rib increases shell integrity above the eyeport
- Clavicle Cut-Away
- 9 Intake Ports and 6 Exhaust Ports work in unison with the Air Gap Ventilation System

Helmet Features:

- Removable, Washable Comfort Liner features Genuine Dri-Lex® anti-bacterial fabric
- Emergency Quick-Release Cheek Pads
- PU-Over Molded EPP Lined Chin Bar includes 6D's exclusive Sternum Pad
- Goggle Band integrated shell recess at the eyeport area improves goggle fit and seal
- Shear-Away Visor Screws
- Nose Guard provides improved roost protection
- Titanium D-Rings
- Lighter overall weight +/- 1480 grams/ 3.26 lbs. (Size M)
- Exceeds DOT, ECE, AC and ASTM Standards
- 3-Year Limited Warranty



“NEW FIM HELMET STANDARDS COMING -
AS WITH MOST OF THE RECENT HELMET IMPROVEMENTS, THIS IS A DIRECT RESULT OF
6D HELMETS PIONEERING STUDIES IN ROTATIONAL ENERGY”
- MXA



ATR-2 SECTOR GRAPHIC MATTE

	XS	S	M	L	XL	XXL
SECTOR Teal	12-0324	12-0325	12-0326	12-0327	12-0328	12-0329
SECTOR White/Black	12-0314	12-0315	12-0316	12-0317	12-0318	12-0319
SECTOR Grey/Black	12-0374	12-0375	12-0376	12-0377	12-0378	12-0379
SECTOR Orange	12-0354	12-0355	12-0356	12-0357	12-0358	12-0359

For ALL ATR-2 visors and accessories - see the price list order form

Rebuildable Advanced ODS System:

- Replaceable Inner EPS Liner*
- Multi-Impact Outer EPP Liner
- Progressive EPP Damping Towers
- Low-Friction Disks
- Isolation Dampers
- Increased ODS Displacement Travel (+30%)
- Improved Linear and Angular Acceleration Mitigation

Shell:

- Optimized light weight Tri-Composite Shell - 3 Shell Sizes
- Cervical Protection Zone at the lower rear shell area
- Brow Rib increases shell integrity above the eyeport
- Clavicle Cut-Away
- 9 Intake Ports and 6 Exhaust Ports work in unison with the Air Gap Ventilation System

Helmet Features:

- Removable, Washable Comfort Liner features Genuine Dri-Lex® anti-bacterial fabric
- Emergency Quick-Release Cheek Pads
- PU-Over Molded EPP Lined Chin Bar includes 6D's exclusive Sternum Pad
- Goggle Band integrated shell recess at the eyeport area improves goggle fit and seal
- Shear-Away Visor Screws
- Nose Guard provides improved roost protection
- Titanium D-Rings
- Lighter overall weight +/- 1480 grams/ 3.26 lbs. (Size M)
- Exceeds DOT, ECE, AC and ASTM Standards
- 3-Year Limited Warranty

NEW



THE ATR-2 HAS EVOLVED TO A WHOLE NEW LEVEL WITH HIGH-TECH MATERIALS AND DESIGN INFLUENCED BY OUR WORK INSIDE THE NFL'S HEAD HEALTH CHALLENGE III COMPETITION



ATR-2 CIRCUIT GRAPHIC GLOSS \$695.

	XS	S	M	L	XL	XXL
CIRCUIT Black	12-0104	12-0105	12-0106	12-0107	12-0108	12-0109

Rebuildable Advanced ODS System:

- Replaceable Inner EPS Liner*
- Multi-Impact Outer EPP Liner
- Progressive EPP Damping Towers
- Low-Friction Disks
- Isolation Dampers
- Increased ODS Displacement Travel (+30%)
- Improved Linear and Angular Acceleration Mitigation

Shell:

- Optimized light weight Tri-Composite Shell - 3 Shell Sizes
- Cervical Protection Zone at the lower rear shell area
- Brow Rib increases shell integrity above the eyeport
- Clavicle Cut-Away
- 9 Intake Ports and 6 Exhaust Ports work in unison with the Air Gap Ventilation System

Helmet Features:

- Removable, Washable Comfort Liner features Genuine Dri-Lex® anti-bacterial fabric
- Emergency Quick-Release Cheek Pads
- PU-Over Molded EPP Lined Chin Bar includes 6D's exclusive Sternum Pad
- Goggle Band integrated shell recess at the eyeport area improves goggle fit and seal
- Shear-Away Visor Screws
- Nose Guard provides improved roost protection
- Titanium D-Rings
- Lighter overall weight +/- 1480 grams/ 3.26 lbs. (Size M)
- Exceeds DOT, ECE, AC and ASTM Standards
- 3-Year Limited Warranty



“MOTOCROSS IS A DANGEROUS SPORT, AND CHOOSING NOT TO EQUIP YOURSELF WITH THE BEST PROTECTION AVAILABLE IS A SILLY MISTAKE”
- TWMX



ATR-2 METRIC GRAPHIC MATTE \$695.

	XS	S	M	L	XL	XXL
Metric White	12-0214	12-0215	12-0216	12-0217	12-0218	12-0219

Rebuildable Advanced ODS System:

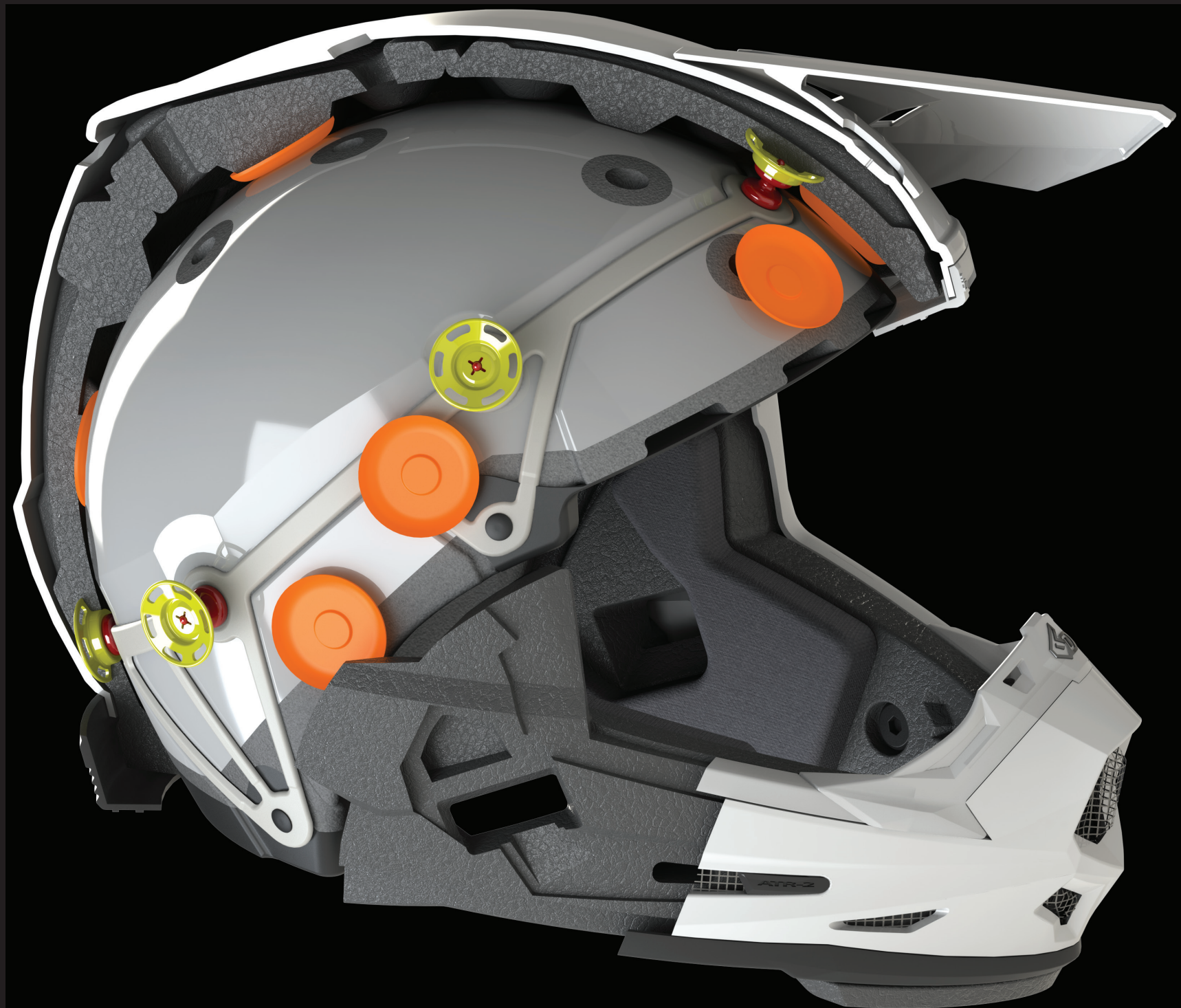
- Replaceable Inner EPS Liner*
- Multi-Impact Outer EPP Liner
- Progressive EPP Damping Towers
- Low-Friction Disks
- Isolation Dampers
- Increased ODS Displacement Travel (+30%)
- Improved Linear and Angular Acceleration Mitigation

Shell:

- Optimized light weight Tri-Composite Shell - 3 Shell Sizes
- Cervical Protection Zone at the lower rear shell area
- Brow Rib increases shell integrity above the eyeport
- Clavicle Cut-Away
- 9 Intake Ports and 6 Exhaust Ports work in unison with the Air Gap Ventilation System

Helmet Features:

- Removable, Washable Comfort Liner features Genuine Dri-Lex® anti-bacterial fabric
- Emergency Quick-Release Cheek Pads
- PU-Over Molded EPP Lined Chin Bar includes 6D's exclusive Sternum Pad
- Goggle Band integrated shell recess at the eyeport area improves goggle fit and seal
- Shear-Away Visor Screws
- Nose Guard provides improved roost protection
- Titanium D-Rings
- Lighter overall weight +/- 1480 grams/ 3.26 lbs. (Size M)
- Exceeds DOT, ECE, AC and ASTM Standards
- 3-Year Limited Warranty



YOUTH

THE NEXT LEVEL
IN YOUTH
PROTECTION

“ THE ATR-1 HAS SWEEPED THROUGH THE SPORT BY STORM, AND FOR GOOD REASON -SAFEGUARDING YOURSELF FROM THE INEVITABLE CRASH IS THE SMART THING TO DO”
- TWMX



ATR-2 AERO GRAPHIC MATTE

	YSM	YMD	YLG	YXL
AERO Black/White	11-5000	11-5001	11-5002	11-5003
AERO Yellow/Black	11-5060	11-5061	11-5062	11-5063
YSM (49-50cm)				
YMD (50-51cm)				
YLG (51-52cm)				
YXL(52-53cm)				

- Rebuildable ODS System:
- Patented Omni-Directional Suspension® (ODS®)
 - Improved ODS design mitigates Angular and Linear Accelerations
 - Replaceable Inner EPS Liner
 - Multi-impact EPP Outer Liner incorporates Isolation Damp-ing Towers
 - Rotational Energy Management Disks reduce Angular Ac-celeration
 - Superior low, mid, and high velocity impact mitigation
 - Air-Gap Ventilation System with 17 Transfer Ports

- Features:
- Removable, washable comfort liner features Genuine Dri-Lex® anti-bacterial fabric
 - Emergency Quick-Release Cheek Pads
 - PU-over molded EPP lined chin bar includes Sternum Pad
 - Goggle band integrated shell recess at the eyeport area im-proves goggle fit and seal
 - Shear-Away Visor Screws designed to reduce angular accelera-tion potential
 - Nose guard provides improved roost protection
 - Titanium D-Rings
 - Light weight with improved center of gravity (+/- 1250 grams Size M)
 - Exceeds DOT, ECE, ACU and ASTM Standards
 - 3-Year Limited Warranty



ATR-2 AERO GRAPHIC MATTE

	YSM	YMD	YLG	YXL
STRIKE Neon Orange	11-5120	11-5121	11-5122	11-5123
STRIKE Red/White/Blue	11-5190	11-5191	11-5192	11-5193

- YSM (49-50cm)
- YMD (50-51cm)
- YLG (51-52cm)
- YXL(52-53cm)

- Shell:
- Optimized compliant light weight Tri-Composite Shell provides superior energy absorption
 - Rear lower shell incorporates compliant zone at the cervical spine location
 - Brow Rib increases shell integrity above the eyeport
 - Clavicle Cut-Away provides increased clearance
 - 9 Intake Ports and 6 Exhaust Ports work in unison with the Air Gap Ventilation System

World Wide Patents:
United States US 8,955,169 B2
Europe EP 2 672 853 B1
China ZL 201280017579.1
Patents Pending



ATB - 1 T

" MTB ACCASSORY
OF THE YEAR "
- INTERBIKE



A
H
E
L
M
E
T

W
I
T
H
I
N
A

H
E
L
M
E
T

**DEDICATED TO THE
RELENTLESS PURSUIT OF
BRAIN PROTECTION.**

6D's revolutionary Omni-Directional Suspension technology has single-handedly inspired the helmet industry to get serious about improving helmet design. Today, nearly 7 years later, a few manufacturers have responded with improved offerings while others rely on marketing hype and brand strength to communicate their interests. Still others have ignored the opportunity to improve their products all together!

6D's proprietary Omni-Directional Suspension (ODS) was the catalyst for these alternate methods of protection making their way to the market and remains the top performing technology available today. Simply stated, ODS is "Suspension For Your Head".

- ODS reduces energy transfer to the brain by means of its suspended inner liner
 - ODS uncouples the inner liner from the outer liner and shell assembly
 - ODS reduces both angular and linear accelerations, at all impact velocities and all impact angles
 - ODS significantly improves low-threshold impact mitigation
 - ODS is not constrained by the shape of the human head (unlike every other system that is mated to the inner surface of the helmet liner including MIPS, Flex, Turbo 360, LDL, Meds, Fluid, Pod, etc.)
 - ODS is rebuildable in select models*



EDUCATION IS KEY:

We encourage you to explore the benefits of ODS and how it compares to traditional helmet designs as well as the emerging technologies from other manufacturers. 6D's patented ODS dual-liner system is the only technology providing significant reductions in angular acceleration while simultaneously reducing low-threshold energy transfer to the brain.

6D's ODS technology is so impressive in fact, that it was awarded the \$500k Grand Prize in the NFL's Head Health Challenge III in 2017. Achieving this award of recognition and success within the Head Health Challenge further validates the excellent properties and benefits of the ODS technology.

**OMNI-DIRECTIONAL SUSPENSION
(ODS) - EXCLUSIVE IN 6D.**

6D's Omni-Directional Suspension (ODS) technology is the key to what sets the 6D helmet apart from any other helmet or helmet technology available. ODS reduces energy transfer to the brain by means of its suspended dual-liner system, effectively providing a helmet within a helmet.

WORLD WIDE PATENTS:
United States US 8,955,169 B2
United States US 9,820,525
Europe E2 672 853 B1
China ZL 201280017579.1

**ODS COMPARED TO COMPETING
NEW TECHNOLOGIES:**

Competing manufactures have scrambled since the introduction of the 6D helmet to address the need for improved helmet performance. The challenge for each of them is the natural shape of the human head. Its oval shape restricts the helmet from slipping in relation to the skull in two of the three primary axis X, Y and Z. This is because the inner surface of the helmet's liner binds under rotation with the 4 corners of the skull in one direction, and the cheek bones and jaw in the other direction.

For example, shear-plane technology (such as MIPS) mated to the helmet's inner liner surface is designed to improve the amount of slip that your head naturally has within the helmet. If the head cannot move very far (because it's fit properly) and the shape of the skull naturally constrains its movement, then these types of systems are restricted to how much effective work they can do in the athlete's benefit. Additionally, a 1-dimensional shear-plane (MIPS) solution has no ability to mitigate linear accelerations.

Other designs mated to the helmet liner's inner surface unfortunately face the same challenges of constraint. In general, they are bumpers with low standoff height providing little true shearing space and capability, especially if they are already compressed to some degree by the head form during the fitting process (which is highly likely). Most of these designs provide only a few millimeters of additional cushion, acting much like a comfort liner.

6D's ODS technology is designed with its shearable suspension system sandwiched between two energy absorbing compressible liners which are shaped more spherical, like a ball and socket. This superior positioning of the technology allows for 6-degrees (6D) of free-motion displacement during any impact, regardless of your head shape, the angle of impact, or how tight your helmet fits!

ODS

OMNI-DIRECTIONAL

SUSPENSION

SUSPENSION
FOR
YOUR HEAD

MTB ACCESSORY OF THE YEAR - INTERBIKE 2016

IT ISN'T JUST STRAIGHT-ON IMPACTS THAT PRESENT A DANGER TO RIDERS, ANGULAR ACCELERATION ALSO FACTORS IN
WHEN TALKING ABOUT SERIOUS HEAD INJURIES / 6D IS PUTTING SAFETY ABOVE ALL ELSE - PINK BIKE

5-STAR RATED - MOUNTAIN BIKE ACTION

HELMET SIZE AND VOLUME

Don't be fooled by marketing hype. Think about it... In a crash event the head form is coming to an instantaneous extreme stop. You want to have this happen over the most time and distance possible to reduce the severity of the deceleration on the brain. A small shelled helmet obviously compromises this as the head will bottom out on the shell (causing accelerations to skyrocket) unless the manufacturer utilized extra stiff EPS to manage the extreme impact force. So while you might get a similar maximum "G" figure at the certification test velocity as a larger shelled helmet, the stiff EPS is grossly ineffective at managing energy at the lower velocities of most crash events.

HOW OMNI-DIRECTIONAL SUSPENSION WORKS:

At the onset of any impact the ODS system's isolation dampers activate immediately addressing the forces applied to the helmet. The isolation dampers compress and shear in response to the impact thereby reducing the transfer of that force to the inner helmet, head form, and brain. If the force applied to the helmet is more extreme, the isolation dampers transition the energy management job to the two energy absorbing compressible liners which are designed to manage higher velocity impacts in a more traditional manner. This dual-liner system allows ODS to manage impact forces in a superior manner to the other competing technologies in the marketplace.

ANGULAR ACCELERATION

The medical community has determined that angular acceleration (rotational force generated during oblique-angle impacts) is the primary cause of concussion and traumatic brain injury.

Traditional helmets are directly "coupled" to the head preventing any ability to mitigate angular acceleration forces. Scientific laboratory testing proved that when subjected to identical impacts, a helmeted head sustained the same degree of angular acceleration as an un-helmeted head*.

ODS technology "uncouples" the helmet from the head form. The suspended dual-liner assembly compresses and shears omni-directionally when subjected to oblique impacts thereby reducing the transfer of angular acceleration forces to the head and brain.

Competing technologies including MIPS, Flex, Turbo 360, LDL, Meds, Fluid Pod, etc. are all trying to uncouple the relationship of the head and the helmet. Each however, is challenged with the same issue; the natural oval shape of the human head. That shape restricts movement. While some of these technologies function better than others, none provide the well-rounded performance of Omni-Directional Suspension.

* Experiments conducted by David C. Viano, PhD, Bioengineering Center, Wayne State University.

LOW-THRESHOLD ENERGY

Recent medical research has provided alarming conclusions surrounding the causes, severity, and long-term effects of concussions. Even seemingly minor concussions may have much more serious long-term effects on the brain. Repetitive low-velocity impacts are cumulative apparently causing buildup of tau proteins and deterioration of the brain's healthy condition.

To meet the various mandatory global certification standards' high-velocity requirements, helmets incorporating add-in shear plane technologies such as MIPS to address rotational force are still way too stiff to effectively absorb energy from impacts at lower velocities.

With this well noted, the vast majority of impacts one might experience in real-world accidents qualify as low-threshold energy impacts; impacts well below certification standards pass/fail velocities, but severe enough to sustain a concussion or a traumatic brain injury (TBI).

ODS starts working the instant any force is applied to the shell, making the helmet more compliant and progressive over the broad range of impact velocities experienced in the highest percentage of 'real world' crashes, while still exceeding the requirements of the global standards.

BROAD RANGE PROTECTION

Across the entire range of potential impact velocities, the 6D helmet with ODS technology consistently outperforms competitive designs. 6D extensively engineers the shell, liners, damper systems, and ODS to provide the best possible impact mitigation performance across all impact velocities for both angular and linear accelerations.

TIME-TO-PEAK (TTP)

Time-to-Peak (TTP) is how long it takes the energy of an impact to reach maximum G-force. Deceleration time is the single most beneficial component in reducing the severity and magnitude of any impact — the more time, the less energy transferred. ODS buys time during the impact event!





6D ATB-1T

First introduced in 2016, the ATB-1T is the world's first $\frac{3}{4}$ coverage helmet with ODS technology. An engineering masterpiece, the ATB-1T has been painstakingly crafted to deliver all of the exceptional benefits of ODS into a more effective protective device. The ATB-1T reduces angular acceleration energy transfer by means of the 3-dimensional displacement capability of ODS when subject to impacts. Low-threshold energy accelerations are also dramatically reduced providing a more forgiving helmet over a much broader range of energy demands.

The ATB-1T is certified to exceed both the EN 1078 and CPSC 16CFR 1203 standards.



	XS/S	M/L	XL/XXL
Neon Yellow/Grey Matte	22-0664	22-0666	22-0668
Silver Matte	22-0674	22-0676	22-0678
Aqua/Grey Matte	22-0624	22-0626	22-0628
Black/Grey Matte	22-0504	22-0506	22-0508
Black/Teal Matte	22-0524	22-0526	22-0528
Olive/Black Matte	22-0544	22-0546	22-0548
Black/White Gloss	22-0514	22-0516	22-0518
Orange/White Gloss	22-0554	22-0556	22-0558
White/Red Matte	22-0534	22-0536	22-0538

[illegible]



LIKE NOTHING ELSE



FIND OUT MORE AT:

stevecramerproducts.com

[/stevecramerproducts](https://www.facebook.com/stevecramerproducts)

[@stevecramerproducts](https://www.instagram.com/stevecramerproducts)

sales@stevecramerproducts.com.au

[03 9587 1466](tel:0395871466)