THE AIRBAG SYSTEM
2017 product range
D-AIR® SYSTEM

AT DAINESWE'RE INSPIRED BY HUMANS

Which is why D-air® technology – our most advanced milestone on the road to the future of safety - is a sophisticated system combining a Heart, a Brain and an Intelligence.

A Brain that controls, monitoring our actions and reactions using a patented proprietary algorithm, the true intelligence of the system. And a Heart that provides wrap-around protection in an instant using revolutionary airbag technology. The Heart protects. The Brain and the Intelligence ensure it does so effectively at just the right moment. Combining the two creates Intelligent Clothing.

Intelligent Clothing is technology you can wear thanks to the innovative integration of expertise from a wide range of fields, including electronics, mechanical engineering and ergonomics. Integration that’s made possible by another field of expertise - that of designing safety tailored to the human body.

D-air® is a protection technology platform that uses an intelligent system to detect danger situations and inflate special airbags developed for motorcyclists. Much more than a product family, D-air® is a highly-advanced protection technology that can be deployed in products designed for a broad spectrum of different uses where protection is required.

D-air® is intelligent clothing, able to protect the wearer, even without their intervention, when they are unable to control what is happening.

The system features different configurations, tailored to the product in which they are integrated and its usage, from the race track to everyday riding.

WHY D-AIR® IS DIFFERENT

D-air® is INTELLIGENT
Its special triggering algorithm can recognize crash conditions to activate the system when necessary.

D-air® is EFFICIENT
It covers the areas of the body that are in need of its additional protection (according to the application).

D-air® is RELIABLE
It’s the result of 16 continuous years’ R&D at the Dainese Science and Research Center.

D-air® is WIRELESS
The system operates without any physical connection to the motorcycle.

D-air® is CERTIFIED
D-air® puts its claims to the test, with performance and reliability that have been certified by prestigious notifying bodies.
D-AIR® ELEMENTS

1 HEART
The 3D Airbag at the heart of every D-air® System. Ergonomically designed for maximum comfort, it features a microfilament construction that ensures uniform inflation for maximum protection.

2 BRAIN
The D-Air® control unit monitors the sensor signals 1,000 times a second using a sophisticated triggering algorithm to decide whether to inflate the airbag.

3 INTELLIGENCE
The proprietary patented triggering algorithm is the intelligence of the system, analyzing and combining the data from the sensors to decide when to inflate the airbag.

D-AIR® EFFICIENCY

Tests carried out in accordance with the current European Standards for shoulder protectors (EN1621.1) show that the D-air® system reduces the impact forces transferred by 90% compared with Level 2 traditional composite protectors.

<table>
<thead>
<tr>
<th>Limit specified by Standard EN1621 Level 1</th>
<th>LEVEL 1</th>
<th>LEVEL 2</th>
<th>D-air® AIRBAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional composite protector Level 2</td>
<td>35 kN</td>
<td>20 kN</td>
<td>2 kN</td>
</tr>
</tbody>
</table>

90% Reduction
Safety is delivered by focusing on four key components: protection, performance, comfort and style. Dainese is constantly challenging benchmarks and redefining safety standards. Over the last 16 years, D-air® has been developed in close collaboration with the best athletes and engineers. Resulting in 35 new patents* and a product that is now an open platform for a safer way of biking.

### HISTORY OF RESEARCH

- Research on airbags, electronics and gas generators
- Advanced ergonomics and comfort studies
- Simulations and tests with the best certification bodies and research institutes (TNO, MIRA, CIDAUT, TÜV, DEKRA, ADAC, SRA)

16 YEARS

1M+ KILOMETERS

Total mileage to establish its reliability (more than half during test sessions)

1200 DEPLOYMENTS

D-air® has proven its effectiveness and continuously contributes to improving the triggering algorithms

- 14 patents related to airbag construction technology
- 11 patents related to triggering algorithms and electronics architecture
- 10 patents related to airbag - garment integration

35 PATENTS

14,000,000 FILED PATENTS

Total mileage to establish its reliability (more than half during test sessions)

- 14,000,000 DEPLOYMENTS

D-air® has proven its effectiveness and continuously contributes to improving the triggering algorithms

- 14,000,000 PATENTS

2000

The first prototype of an airbag shaped around the human body is presented.

2007

The first D-air® Racing deployment in an official racing event.

2011

Market launch of D-air® Racing

2012

Market launch of D-air® Street

2015

Launch of Misano 1000: the first standalone jacket for road use. D-air® becomes an open platform to protect all riders with D-air® Armor.
D-AIR® PRODUCT RANGE - RACING

MUGELLO R
D-AIR®

MISANO
D-AIR®
By further innovating what was already the ultimate in leather racing suits, Dainese has raised the standard in terms of performance, protection and style on the track. Construction is of kangaroo hide, with elastic inserts in a new Tri-Axial elastic fabric on the back for enhanced comfort, titanium plates on shoulders, elbows and knees and engineered fabric. The D-air® airbag now extends down to the ribcage area, and integrates an intelligent LED emergency lighting system that illuminates in the event of a crash, alerting riders of one’s whereabouts in low-visibility conditions.

**MAIN MATERIALS**
- 100% Kangaroo leather
- Seamless engineered fabric
- Titanium

**ERGONOMICS**
- Tri-axial elasticated insert on the back
- Microelastic 2.0
- Engineered elasticated textile on sleeves and legs
- Comfort seamless collar construction
- Integrated suit to boots fastening system
- Aerodynamic spoiler

**SHOCK PERFORMANCE**
- Suit with integrated D-air® system and protectors is CE Category II certified according to Directive 89/686/EEC
- Composite protectors certified to EN 1621.1 Standard Lev. 2 on shoulders and hips
- Pro-Armor protectors certified to EN 1621.1 Standard Lev. 2 on shoulders and hips
- Semirigid panels with high abrasion resistance on back and sleeves
- Seamless titanium plates on shoulders, elbows and knees
- Wave D1 Air back protector certified to EN 1621.2 Lev. 2 included
- Adaptive knee construction: knee protectors integrated with elasticated inserts

**TEMPERATURE**
- Localized perforation
- Breathable elasticated inserts on sleeves, legs and neck
- Breathable Nanofeel® liner with Silver ion treatment

**GENERAL FEATURES**
- Replaceable Slider System 2.0: quickly releaseable elbow slider
- Waterbag kit
- Knee slider 2.0
- Oversuit

**COLOR VERSION**
- N32 black/white/fluo-red
- P75 black/black/fluo-red

**MUGELLO R D-AIR® suit**

Warning: The described product’s features, technical specifications or performances may change over time. Please always consult the User Manual before buying your Dainese products.
The D-air system works in synergy with existing protectors integrated in the leather suit to shield the following areas of the rider’s body:

- Shoulders
- Collarbones
- False ribs
- Neck
- * Limits the inclination of the head in relation to the neck and reduces helmet movement during rolling.

Thanks to its intelligent algorithm, D-air® recognizes the violence of a fall and deploys, only if necessary, in the event of one of the accidents shown above. The system does not deploy for instance in falls at less than 50 km/h or in falls in which the dynamics do not demand the extra protection offered by the airbag.

**D-AIR® APPLICATION**

- **Highsides:** Rider thrown from the bike as a result of rear wheel slide followed by a sudden recovery of grip.
- **Lowsides with tumbling:** Loss of front or rear wheel grip followed by rider rolling.

The airbag is high-pressure inflated, anatomically shaped and has a volume of 9 liters.
Dainese's highest-selling leather track suit with airbag technology, the Misano D-air® boasts details like D-Skin 2.0 leather construction, Bi-Axial elasticated inserts for an unrivaled fit, and protective features including aluminum inserts at the shoulders and knees, titanium inserts at the elbows, and the Elbow Slider Replaceable Slider System (RSS).

**MISANO D-AIR® suit**

**MAIN MATERIALS**
- D-skin 2.0 leather
- S1 Bi-Elastic fabric

**ERGONOMICS**
- Bi-Axial elasticated insert
- Inserts in elasticated fabric
- Microelastic inserts
- Double calf zip
- Suit to boot fastening system
- Aerodynamic Spoiler
- Oversuit

**SHOCK PERFORMANCE**
- Suit certified to CE - Cat. II 89/686/EEC
- Back protector certified to EN 1621.2 Standard (Lev.1)
- Composite protectors certified to EN 1621.1 Standard
- Pro Shape® suit protectors certified to Standard EN 1621 at sides
- Aluminium inserts on shoulders and knees
- Titanium inserts on elbows
- Elbow Slider RSS: Replaceable Slider System

**TEMPERATURE**
- NanoFeel® removable liner
- Perforated leather (summer version)

**COLOR VERSION**
- P75: black/black/fluo-red
- U25: white/fluo-red/black
- 948: black/black/white

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The D-air® system works in synergy with existing protectors integrated in the leather suit to shield the following areas of the rider’s body:

- **Shoulders**
- **Neck**
- **Collarbones**

The airbag is high-pressure inflated, anatomically shaped and has a volume of 4 liters.

**Microfilaments**

- **5 cm**

**D-air® Application**

D-air® recognizes and activates in the event of the following accidents to provide its revolutionary additional protection:

- **Highsides**
  Rider thrown from the bike as a result of rear wheel slide followed by a sudden recovery of grip.

- **Lowsides with tumbling**
  Loss of front or rear wheel grip followed by rider rolling.

Thanks to its intelligent algorithm, D-air® recognizes the violence of a fall and deploys, only if necessary, in the event of one of the accidents shown above. The system does not deploy for instance in falls at less than 50 km/h or in falls in which the dynamics do not demand the extra protection offered by the airbag.

*Limits the inclination of the head in relation to the neck and reduces helmet movement during rolling.*
D-AIR® PRODUCT RANGE - ROAD

MISANO D-AIR®  
SPORT

CYCLONE D-AIR®  
SPORT-TOURING

CONTINENTAL D-AIR®  
URBAN
Serious sport riders demand the ultimate in protection, and that’s exactly what this jacket provides, with aluminum inserts on shoulders, construction of D-skin 2.0 full-grain leather, and of course the intelligent D-air® system covering the collarbones, shoulders, chest, and back. Meanwhile, micro elastic inserts, as well as air inlets at the sides ensure comfort. The D-air® system includes Pro-Armor technology and now combined they deliver a superior level of protection.

**MISANO D-AIR® jacket**

- **D-skin full grain cowhide leather**
- **S1 Bi-Elastic fabric**
- **Microelastic inserts on the back**
- **Aluminum inserts on shoulders**
- **LED user interface**

**COLOR VERSION**

- **I96** white/black/fluo-red
- **948** black/black/white

**MAIN MATERIALS**

- D-skin 2.0 full grain cowhide leather
- S1 bi-elastic fabric

**GENERAL FEATURES**

- 2 front pockets

**ERGONOMICS**

- Microelastic elasticated inserts
- Inserts in elasticated fabric
- Elasticated inserts
- Waist adjustment
- Jacket-trousers fastening system
- Aerodynamic Spoiler

**SHOCK PERFORMANCE**

- Jacket with integrated D-Air® system and protectors is CE Category II certified according to Directive 89/686/EEC
- Aluminium inserts on shoulders
- Pro-Armor: Soft protectors certified to Standard EN 1621.1 on shoulders
- Composite protectors certified to EN 1621.1 standard on elbows

**TEMPERATURE**

- NanoFeel® liner with silver ion treatment
- 3D-Bubble liner air spaces
- Air inlets on the sides

**PRO-ARMOR BACK PROTECTOR**

The D-air® jacket comes with an integrated Pro-Armor back protector. In addition to carrying the D-air® unit, this back protector offers superior protection and ergonomics. The fractal structure allows the protector to mould its shape dynamically to the body. A denser structure around the spine provides maximum protection. A more open structure on the sides provides greater flexibility.

The impact energy absorbed by Carbon Elastomer is dissipated through the fractal structure. Combining the polymer with this fractal structure delivers both maximum performance and localized comfort.

The surface is highly perforated, for maximum breathability.

Warning: The described product’s features, technical specifications or performances may change over time. Please always consult the User Manual before buying your Dainese products.
The new standard for protection in the sport-touring world. This jacket combines the ultimate standalone airbag system with the key features of Dainese’s standard D-Cyclone – including a breathable waterproof GORE-TEX® 2L membrane, protective cowhide leather inserts, removable inner collar and thermal liner. The D-air® system includes Pro-Armor technology and now combined they deliver a superior level of protection.

**CYCLONE D-AIR® jacket**

1. Waterproof and breathable laminated GORE-TEX® 2L Fabric
2. Removable thermal liner and inner collar
3. Air vents on chest and back
4. Cowhide leather inserts
5. LED user interface

**COLOR VERSION**

1. Water.

**PRO-ARMOR BACK PROTECTOR**

The D-air® jacket comes with an integrated Pro-Armor back protector. In addition to carrying the D-air® unit, this back protector offers superior protection and ergonomics. The fractal structure allows the protector to mould its shape dynamically to the body. A denser structure around the spine provides maximum protection. A more open structure on the sides provides greater flexibility. The impact energy absorbed by Carbon Elastomer is dissipated through the fractal structure. Combining the polymer with this fractal structure delivers both maximum performance and localized comfort. The surface is highly perforated, for maximum breathability.

**GENERAL FEATURES**

- 2 inner waterproof pockets
- 3 outer pockets (2 waterproof)
- Reflective inserts

**ERGONOMICS**

- Waist adjustment
- Neck adjustment
- Wrist adjustment
- Anti-floating sleeve adjustment
- Hip adjustment
- Inserts in elasticated fabric
- Jacket-trousers fastening system

**MAIN MATERIALS**

- Laminated Gore-tex® 2L SPL 600XX fabric
- Cowhide leather inserts

**SHOCK PERFORMANCE**

- Jacket with integrated D-Air® system and protectors is CE Category II certified according to Directive 89/686/EEC
- Pro-Armor: soft protectors certified to Standard EN 1621.1 on shoulders
- Polyurethane rigid shoulders covered with cowhide leather
- Composite protectors certified to EN 1621.1 standard on elbows

**TEMPERATURE**

- Removable inner collar
- Removable thermal liner
- Breathable waterproof 2L GORE-TEX® membrane
- Big air vents on chest and back

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**MAIN MATERIALS**

- Laminated Gore-tex® 2L SPL 600XX fabric
- Cowhide leather inserts
CONTINENTAL D-AIR® jacket

Now even urban riders can enjoy the unmatched protective benefits of the D-air® system, but without giving up the clean, sophisticated design for which the standard version of Dainese’s most popular city jacket is known. Notable features include a soft removable Thermore® Classic 130g insulation and a breathable waterproof GORE-TEX® 2L membrane. The D-air® system includes Pro-Armor technology and now combined they provide a superior level of protection.

1. Waterproof and breathable laminated GORE-TEX® 2L Fabric
2. Thermore Classic 130g thermal insulation
3. Removable inner collar
4. Wrist and waist adjustments
5. LED user interface

COLOR VERSION

001 black

PRO-ARMOR BACK PROTECTOR

The D-air® jacket comes with an integrated Pro-Armor back protector. In addition to carrying the D-air® unit, this back protector offers superior protection and ergonomics. The fractal structure allows the protector to mould its shape dynamically to the body. A denser structure around the spine provides maximum protection. A more open structure on the sides provides greater flexibility. The impact energy absorbed by Carbon Elastomer is dissipated through the fractal structure. Combining the polymer with this fractal structure delivers both maximum performance and localized comfort. The surface is highly perforated, for maximum breathability.

GENERAL FEATURES

- 3 inner pockets
- 2 waterproof pockets
- Reflective inserts

ERGONOMICS

- Wrist adjustment
- Waist adjustment
- Adjustable jacket bottom

SHOCK PERFORMANCE

- Jacket with integrated D-Air® system and protectors is CE Category II certified according to Directive 89/686/EEC
- Pro-Armor: soft protectors certified to Standard EN 1621.1 on shoulders
- Composite protectors certified to EN 1621.1 standard on elbows

MAIN MATERIALS

- Laminated Gore-tex® 2L waterproof and breathable fabric
- Thermore® Classic 130g thermal padding

TEMPERATURE

- Removable Thermore® Classic 130g thermal lining
- Breathable waterproof 2L GORE-TEX® membrane
- Removable inner warm collar
- Liner in breathable and perforated Sanitized® fabric

GENERAL FEATURES

- 3 inner pockets
- 2 waterproof pockets
- Reflective inserts

Warning: The described product’s features, technical specifications or performances may change over time. Please always consult the User Manual before buying your Dainese products.
D-AIR® JACKET SYSTEM

D-air® is a standalone* electronic airbag system for use on the road that only operates if connected to and integrated with specifically designed and certified Dainese protective garments. The system’s 6 sensors, electronics and GPS are integrated in the Pro-Armor back protector, dispensing with the need for you to install a kit on your bike.

The D-air® control unit monitors the sensor signals 1000 times a second using a sophisticated triggering algorithm. D-air® system works in synergy with existing protections to shield the following areas of the riders body:

- **NECK**
- **SHOULDERS**
- **COLLABONES**
- **CHEST**
- **BACK**

The airbag is high-pressure inflated, anatomically shaped and has a volume of 11 liters.

* Standalone means no connection or sensors need to be installed on the motorbike.
  ** Limits the inclination of the head in relation to the neck and reduces helmet movement during rolling.

D-AIR® APPLICATION

D-air® recognizes and activates in the event of the following accidents to provide its revolutionary additional protection:

1. **Frontal and side collisions**
   Impact on fixed or moving objects.

2. **Highsides**
   Rider thrown from the bike as a result of rear wheel slide followed by a sudden recovery of grip.

3. **Lowsides with or without tumbling**
   Loss of front or rear wheel grip followed by rider rolling or sliding.

Thanks to its intelligent algorithm, D-air® recognizes the violence of a fall and deploys, only if necessary, in the event of one of the accidents shown previously. The system does not deploy for instance in falls at less than 10 km/h or in falls in which the dynamics do not demand the extra protection offered by the airbag.
1 LED USER INTERFACE
Newly designed LED user interface on the arm that enables to check the functioning of the system

2 BATTERY LIFETIME
Improved battery lifetime for 24h of continuous protection

3 BATTERY RECHARGE
Quick recharge time in 4 hours
Discover the entire D-air® collection at DAINES.COM