



DNA FOX 12



DNA FOX 08



DNA FOX 11

forestry activities
wildland fire-fighting
technical rescue
civil protection
traffic rescue
hazardous environment

DNA FOX Multifunctional Helmets

DNA helmets have received **EC type examination certificate** from the Notified Body for the directive 89/686/EEC n° 0497 CSI Spa, viale Lombardia 20, 20021 Bollate (MI) – Italy

DNA Srl is an **ISO 9001:2008** certified company to assure quality procedures and production capabilities .

Shell

The shell of **DNA FOX** helmets is UV resistant and offers:

- Removable cap on crest for insertion of torch **DNA FOX IGNIS**;
- Frontal space available for personalised logo;
- Lamp/camera carrying system by external clips;
- Housing for hanging respirators (full face and half face masks);
- Housing for ear muff and/or visors (mesh or polycarbonate);
- Housing for quick release connector goggles **UNIVET® 611 DNA**;
- Inside housing for neck protector **DNA FOX SAHARIANA**;
- Visor mounting system to allow half face visor or full face visor;
- Rear D-ring for hanging helmet at belt.

Retro-reflectivity

- 3M Rear-view reflector signaling white, yellow or red (standard for **DNA FOX 11/12**, option for **DNA FOX 08**).

Ventilation:

- 6 air intakes for natural air flow and circulation.
 - **DNA FOX 08** and **DNA FOX 11**: Grids against flame and high speed particles.
 - **DNA FOX 12**: PC caps against rain, flame, high speed particles and molten metal splash.

Inner shell / Inner lining

- Impact absorption.
- Comfort inner padding, easy to detach for washing or replacing.

Retention system

- **DNA FOX 08**: 4 points strap, adjustable in length and height, quick release buckle, EN 397 release system, padded under-chin.



- **DNA FOX 11/12**: 4 points para-aramide strap, adjustable in length and height, quick release buckle, padded aramide under-chin.



Headband

- Quick adjusting headband (from cm. 52 to cm. 64) by means of rear knob.
- Frontal soft padded lining, detachable and washable.

- Weight:** - **DNA FOX 08**: 460 + 50 grms (without accessories).
 - **DNA FOX 11/12**: 570 ± 50 grms (without accessories).

COLOURS:



DNA FOX 08: Helmet for forestry activities and working at height

CE* PPE Cat. II

- * **EN 397:2013** "Industrial safety helmets"
 Clauses: 4.10 Accessories;
 5.1.1 Shock absorption;
 5.1.2 Penetration resistance;
 5.1.3 Flame resistance;
 5.1.4 Chin strap anchorages;
 5.2.4 Lateral deformation;
- * **EN 12492:2012** "Helmets for mountaineers"
 Clause: 4.1.4 Ventilation



DNA FOX 11

Helmet for wildland fire fighting, technical rescue and civil protection

CE* PPE Cat. III

- * **EN 16471:2014** "Firefighting helmets – Helmets for wildland fire fighting"
- * **EN 16473:2014** "Firefighting helmets – Helmets for technical rescue"
- * **EN 397:2013** "Industrial safety helmets"
 Clauses: 4.10 Accessories;
 4.1.4 Additional devices and accessories
- * **EN 12492:2012** "Helmets for mountaineers"
 Clauses: 4.2 Performance requirements



DNA FOX 12

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CE* PPE Cat. III

- * **EN 16471:2014** "Firefighting helmets – Helmets for wildland fire fighting"
- * **EN 16473:2014** "Firefighting helmets – Helmets for technical rescue"
- * **EN 397:2013** "Industrial safety helmets"
 Clause: 4.10 Accessories
 4.1.4 Additional devices and accessories
- * **EN 12492:2012** "Helmets for mountaineers"
 Clause: 4.2 Performance requirements
- * **EN 443:2008** "Helmets for fire fighting in buildings and other structures"
 Clauses: 4.9 Protection against molten metals
 4.11 Flame resistance

DNA FOX HELMETS IN USE WITH SOME ACCESSORIES

Frontal space available for personalised logo

by pad multicolor printing; see examples:



Visor mounting system allows the use of

visor **DNA FALCON F** (optional):

CE marked PPE Cat III, half face visor:

Easily mounted on **DNA FOX** helmets without using any tools, optical class 1, EN 14452:2004, marking:

EN 14458:2004 DNA DNA FALCON F xx = ☉ 3 1 2 -30°C; 60°C

T K Ω ⓘ 0497 CE



Housing for neck protector allows the use of

DNA FOX SAHARIANA, by aramide (code 90005), or Proban (code 90006), or aluminized (code 90007) to be mounted by 5 points of connection. It covers neck (back and side) and ear region. Resistant to heat, flame and to contact to liquid chemicals.

Housing for quick release connector for goggles allows the use of

UNIVET® 611 DNA: CE marked PPE Cat. III, goggles for fire fighting.

Easily mounted on **DNA FOX** helmets by its side quick release connectors optical class 1, EN 166:2004, marking:

- Frame: U EN166 3 4 5 9 BT 2C-3 0068CE
- Lens: 2C-1.2/5-1.1U 1 BT 9 K N 0068CE



Housing for hanging respirators (full face and half face masks) allows the use of

SPASCIANI® compact half masks with P3 filter, for **DNA FOX** helmets to which it's hanging by 2 rubber lace with hook (mounting without taking off the helmet from head):

220 NGH: CE marking PPE Cat. III, EN 1827:1999+A1:2009

ST 85 E: CE marking PPE Cat. III, EN 140:1998+A1:2009 - Filters EN 143:2000+A1:2006

SPASCIANI® full face masks to be mounted by its external arms without taking off the helmet from the head.



SPASCIANI® 220 NGH



SPASCIANI® ST85 E



SPASCIANI® TR82 E / TR82 E A



The use of **SPASCIANI®** masks in combination with **DNA FOX** helmet, goggles **UNIVET® 611 DNA** (optional), and **DNA FOX SAHARIANA** (optional) used in wildland fire fighting, allow escaping from polluted area very quickly in case of accident.

DNA FOX HELMETS IN USE WITH SOME ACCESSORIES

Lamp/camera carrying system by external clips allows the use of

led torch **DNA LUX**, to be fixed to the **DNA FOX** helmets:

CE marked, elastic band, adjustable inclination, 80 lumens, low level red light, signaling red (S.O.S) beacon light, gesture activation control, 3 AAA batteries, water-proof IPX4.



Removable cap on crest allows the insertion of

led torch **DNA IGNIS**: CE marked, fully integrated into the **DNA FOX** helmets, 80 lumens, gesture activation control, 2 AA batteries, battery charge indicator light, water-proof IPX4.



Protection from flame and radiant heat

DNA BANDANNA, CE marked PPE Cat. III thermal protector (radiant heat and direct flame) of major portions of the face and neck, multilayer, excellent resistance to heat and flame.



The use in combination with **DNA FOX** helmet, **DNA FALCON F** visor, and **DNA FOX SAHARIANA** neck protector defends neck and head from heat and flame. Can be used with or without **3M®** disposable respirators.

Housing for ear muff and/or visor mounting system (mesh or polycarbonate) allows

to use series of **Ear muff 3M® Peltor®** cap-mount bayonet-type (model to be checked) for protection from noise and/or communications.



DNA FOX helmet in combination with half face visor **DNA FALCON F** and **3M® Peltor®** ear muff.

to use series of bayonet-type cap-mount **3M® Peltor®** ear muff (model to be checked) and **3M® Peltor®** mesh or polycarbonate visors (model to be checked).



DNA FOX helmet in combination with **3M® Peltor®** mesh visor and **3M® Peltor®** ear muff.

SOME TESTS PASSED BY DNA FOX HELMETS

SHOCK ABSORPTION



Fox 08:
hemispherical striker: on crown 5 kg from a height of 1.000 mm. - force transmitted to head < 5Kn.
Conditioning: UV; 35°C; -20°C.

Fox 11-12:
hemispherical striker: on crown 5 kg from a height of 1.000 mm. and flat striker on front, side, rear 5 Kg from a height of 500 mm. - force transmitted to head < 5Kn;
hemispherical striker: on crown 5 kg from a height of 2.000 m. and flat striker on front, side, rear 5 Kg from a height of 500 mm. - force transmitted to head < 10Kn.
Conditioning: -30°C; 50°C; H₂O.

PENETRATION RESISTANCE



Fox 08-11-12:
conical striker: on crown region from a height of 1.000 mm. - no contact with the test head.

LATERAL CRUSHING



Fox 08:
by force transversely applied till 430 N with the brim of the helmet lied outside, the maximum lateral deformation of the helmet does not exceed 40 mm. and the residual lateral deformation does not exceed 15mm.

Fox 11-12:
by force transversely applied till 430 N on the brim of the helmet, the maximum transverse deformation of the helmet does not exceed 40 mm. and the residual lateral deformation does not exceed 15mm.

RETENTION SYSTEM

Fox 08:
anchorage(s) release at a force of not less than 150 N and not more than 250 N, due to failure only of anchorage.

Fox 11-12:
the release point of the retention system is between 500N and 1.000 N.

FLAME RESISTANCE



Fox 08: when helmet shell is exposed to a standard flame for 10 s, the materials of the shell do not burn with the emission of flame after a period of 5 s has elapsed after removal of the flame.

Fox 11-12: any of the externally exposed materials of the helmet does not burn with the emission of flame or drip molten material after a period of 5 s has elapsed from removal of the flame (flame application time: helmet shell 15 s, helmet retention system components 10 s).

Fox 12: helmet tested by "Flame engulfment" for a period of 10 s.: the material does not show any drip during the whole test and any visible flame or glow after 5 s following removal of the flame.

RADIANT HEAT PROTECTION / THERMAL STRESS



Fox 11-12: heat applied 7 kW/m. for 1 min. on crown of the helmet by 3 cycles: temperature inside the helmet does not increase more than 25° C. and no material ignites or melt.

Crown impact test performed within 60 s. after the last heat application cycle: hemispherical striker 5 kg from a height of 1.000 mm.: force transmitted to head < 5Kn.

ELECTRICAL PROPERTIES

Fox 11-12:
no evidence of breakdown visible and the leakage current does not exceed 1,2mA after conductive head for test and after surface insulation test.

RESISTANCE TO CONTACT WITH LIQUID CHEMICALS












Fox 11-12:
shell and fitting devices resists to contact with: Sulphuric acid 30 (aqueous), Sodium hydroxide 10 (aqueous), p-Xylene undiluted, Butan-1-ol undiluted, n-Heptane undiluted.

DNA FOX HELMETS

Code	Description
08XXYZ	DNA FOX 08: helmet for forestry activities and working at height: ABS UV resistant shell, lateral crushing resistant reinforcement ring (patent pending), 6 air intakes with grids, lamp/camera carrying system by external clips, positions for dedicated ear muff, camera, visors and goggles, anti-shock inner shell, comfort inner padding detachable and washable, headband with knob on back for size regulation from 52cm. to 64cm., retention system by 4 points strap, adjustable in length and height, quick release buckle, EN 397 release system, padded under-chin. Rear D ring for hanging helmet at belt.
11XXYZ	DNA FOX 11: helmet for wildland fire fighting, technical rescue and civil protection: PC FLAME RETARDANT shell, UV resistant, lateral crushing resistant reinforcement ring (patent pending), 6 air intakes with grids, lamp/camera carrying system by external clips, positions for dedicated ear muff, camera, visors and goggles, 3M® rear view reflector signaling, anti-shock inner shell, comfort inner padding detachable and washable, headband with knob on back for size regulation from 52cm. to 64cm., retention system by 4 points PARA-ARAMIDE strap, adjustable in length and height, FLAME RETARDANT quick release buckle, padded under-chin. Rear D ring for hanging helmet at belt.
12XXYZ	DNA FOX 12: Helmet for wildland fire fighting, technical rescue and civil protection: PC shell, UV resistant, FLAME RETARDANT, lateral crushing resistant reinforcement ring (patent pending), 6 air intakes with PC caps against rain, flame, high speed particles and molten metal splash, lamp/camera carrying system by external clips, positions for dedicated ear muff, camera, visors and goggles, 3M® rear view reflector signaling, anti-shock inner shell, ARAMIDE comfort inner padding detachable and washable, headband with knob on back for size regulation from 52cm. to 64cm., retention system by 4 points PARA-ARAMIDE strap, adjustable in length and height, FLAME RETARDANT quick release buckle, ARAMIDE padded under-chin. Rear D ring for hanging helmet at belt.
XX Y Z	Shell colour: 01 Royal Blue , 02 White, 05 Red, 06 Black, 07 Yellow, 10 Orange, 55 Mirrored Chrome Finishing: 1 Matt, 2 Glossy, 3 Plated Signaling colour: 0 Without, 1 White, 5 Red, 2 Yellow

Photo: Giampaolo Ossani

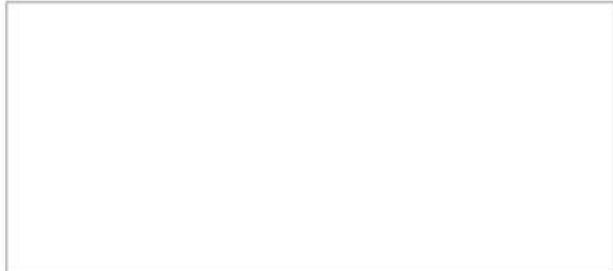
ACCESSORIES AND SPARE PARTS

Image/Code	Description	Image/Code	Description
 900001 900002 900003	DNA FALCON: Half face visor with connectors for helmets DNA FOX . CE marked EN 166:2001 DNA FALCON F: Half face visor with connectors for helmets DNA FOX . CE marked EN 14458:2004 DNA FALCON FA: Half face visor anti-fog with connectors for helmets DNA FOX . CE marked EN 14458:2004	 900014 900015 900016	Set 3M® Rear-view stickers 01 White Set 3M® Rear-view stickers 05 Red Set 3M® Rear-view stickers 07 Yellow
 100009	DNA IGNIS: led torch, fully integrated into the DNA FOX helmets, 80 lumens, gesture activation control, 2 AA batteries, battery charge indicator light, water-proof IPX4. CE marked	 100008	3M® Peltor® ear muff mod. OPTIME 1 H510P3E
 900020	DNA LUX: to be fixed to the DNA FOX helmets: led torch with elastic band, adjustable inclination, 80 lumens, low level red light, signaling red (S.O.S) beacon light, gesture activation control, 3 AAA batteries, water-proof IPX4. CE marked	 900017 900018	DNA FOX Inner lining: replacement (headband, top, nape chin) DNA FOX Inner lining ARAMIDE: replacement (headband, top, nape, chin)
 100002	Spasciani® 220 NGH Half Mask without inhalation valve (class FM P3 NR) with 2 attaching for DNA helmets CE marked EN 1827:1999 + A1:2009	 100011	UNIVET® 611 DNA: Extrication goggles, clear double lens, sealed, with quick attach for helmets and adaptor for DNA FOX helmets. CE marked EN 166:2004
 100004	Spasciani® ST 85E Half Mask with 2 attaching for DNA helmets, provided with a female thread connection to EN 148/1 for filters EN 143:2000 + A1:2006. CE marked EN 140:1998	 900005 900006 900007	DNA FOX SAHARIANA: Aramide Neck protector DNA FOX SAHARIANA 1: Proban Neck protector DNA FOX SAHARIANA 2: Aluminised Neck protector
 100009	DNA BANDANNA: thermal protection (radiant heat and direct flame) of major portions of the face and neck		



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DOCUMENT REFERENCE DNA: F.2 ENG - AUGUST 2014
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11XXYZ	DNA FOX 11: helmet for wildland fire fighting, technical rescue and civil protection: PC FLAME RETARDANT shell, UV resistant, lateral crushing resistant reinforcement ring (patent pending), 6 air intakes with grids, lamp/camera carrying system by external clips, positions for dedicated ear muff, camera, visors and goggles, 3M® rear view reflector signaling, anti-shock inner shell, comfort inner padding detachable and washable, headband with knob on back for size regulation from 52cm. to 64cm., retention system by 4 points PARA-ARAMIDE strap, adjustable in length and height, FLAME RETARDANT quick release buckle, padded under-chin. Rear D ring for hanging helmet at belt.
12XXYZ	DNA FOX 12: Helmet for wildland fire fighting, technical rescue and civil protection: PC shell, UV resistant, FLAME RETARDANT, lateral crushing resistant reinforcement ring (patent pending), 6 air intakes with PC caps against rain, flame, high speed particles and molten metal splash, lamp/camera carrying system by external clips, positions for dedicated ear muff, camera, visors and goggles, 3M® rear view reflector signaling, anti-shock inner shell, ARAMIDE comfort inner padding detachable and washable, headband with knob on back for size regulation from 52cm. to 64cm., retention system by 4 points PARA-ARAMIDE strap, adjustable in length and height, FLAME RETARDANT quick release buckle, ARAMIDE padded under-chin. Rear D ring for hanging helmet at belt.
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