# Choosing the right head protection

When fall arrest systems are used an appropriate safety helmet shall be worn to protect the worker from head injury during an uncontrolled fall

A fall arrest system is an assembly of interconnected components consisting of a harness which is connected to an anchorage point by means of a lanyard incorporating an energy absorber.

Industrial hard hats are only designed to protect the head from falling objects. For work at height, it is essential that in the event of an uncontrolled fall the helmet is retained on the head and can withstand multiple point impacts. AS/NZS 1801:1997 does not meet these requirements.
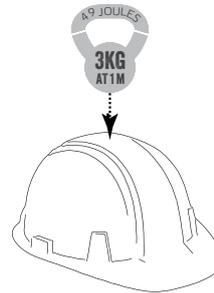
CROWN IMPACT TEST
AS/NZS 1801:1997
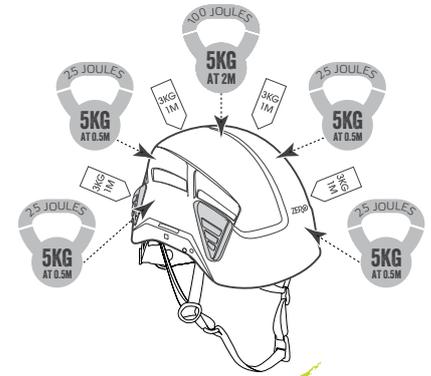
MULTI SIDE AND CROWN IMPACT TEST
EN 12492: 2012

Helmet selection guide

The ZERO helmet guide is based on the ability of a helmet to absorb impact energy and perform in the various industrial work environments. Many ZERO helmets are certified with multiple safety standards and protective features. This guide will help you select the correct helmet for your field of work including general height safety through to more specialist, multi-discipline work requirements.

Product Make	Code	Confined Space	Equestrian	ATV	Work at Height	Marine Use	Replacement Internal padding	With Peak	Vented	Hot Works	Chinstrap Release >50N	Integral Visor	Accepts Ear Protectors & Visor	Electrical Resistance	EN14092 Rescue Helmet	EN12492 Multi Impact Standard	EN397 Industrial Helmet
Flash	APX-01	•			•				•				•	x20,000V			•
Exo	APX-02	•			•			•	•		•		•				•
Multi Pro	APX-05	•			•			•	•		•		•			•	
Manta Extreme	MH/3	•	•	•	•	•	•		•		•	•	•		•	•	•
Tytan	KZ-101	•			•			•	•	•	•	•	•	x1200V		•	
Terrain	TH/3	•	•	•	•	•			•		•	•				•	•

JAEDON.CO.NZ
Phone +64 9 263 4566
10 Ryan Place, PO Box 76 128, Manukau, Auckland 2104, New Zealand

JAEDON ®
MANUFACTURING
SAFETY WORKWEAR SPECIALISTS

Understanding Multi-Impact Helmet Standards

Are you adequately protected? Many helmets for industrial use are only designed and intended to protect the head from falling objects. For work at height, it is essential that in the event of an uncontrolled fall the helmet is retained on the head and can take multiple impacts. Select a helmet with the impact and penetration testing standards most appropriate to your work activities.

	Crown impact test	Multi side impact test	Standards description
AS/NZS 1801 / EN 397	49 JOULES — 5KG AT 1M	NO TEST	**The standard industrial safety helmet standards** Testing is only carried out to the top of the helmet. A 49J impact only to the crown of the helmet measures the shock absorption and a penetration test with a 3kg conical striker from 1m. There is no side impact test in this standard- only a lateral rigidity test, which is a slow, progressive force loading, and is not an impact test. EN 397 requires a chinstrap which is designed to release under load with a force of 150N< F <250N. AS/NZS 1801:1997 helmets make attachment of a releasing type chinstrap an option only.
EN 12492	100 JOULES — 5KG AT 2M / 3KG 1M	25 JOULES — 5KG AT 0.5M / 3KG 1M	**The standard for mountaineers** A helmet complying to the mountaineering standard must be approved by the manufacturer for industrial use. Impact tested with two 5kg strikers: a hemispherical striker is dropped from 2m onto the crown of the helmet and a flat striker from 500mm on to the front, rear & side by tilting the headform to 30º. In all cases, the transmitted force through the neck of the headform must not exceed 10kN. Two penetration tests with a 3kg pointed striker are also performed within any point around the shell of the helmet without making contact with the headform. Exceeds the shock absorption and impact tests of AS/NZS 1801 & EN397. Non releasing chinstrap F >500N.
EN 14052	100 JOULES — 5KG AT 2M / 1KG 2.5M	50 JOULES — 5KG AT 1M / 1KG 2M	**The standard for high performance industrial safety helmets** Extreme rated helmet standard, the specification includes the requirement for side impact protection. Tests require that the shell is subjected to a total of 150J of impact energy, 100J to the top of the helmet and 50J to the side (up to 60º from the crown) of the helmet. Penetration testing is also required with a "blade" striker being dropped from 2.5m to give an impact energy of 25J on to the top of the helmet and an impact energy of 20J from 2m on the side of the helmet. Exceeds the shock absorption and impact tests of AS/NZS 1801, EN397 and EN12492. Non releasing chinstrap F>500N.