

**ilic
GEZOND
OP HET DAK**



International conference 11-12 November 2008 Kiev

**Presentation by Jos van der Borgt
The Netherlands**

Kiev – Brussels - Amsterdam

**Fall prevention systems:
rules and practical use**

About the speaker

Jos van der Borgt

- Carpenter
- Architecture teacher
- Trade union official
- Occupational health and safety consultant

About SBD

- Dutch roofing industry organization
- Studies and publicises safe practices
- Founded and run jointly by employers' organizations and trade unions
- Works closely with the government and the Labour Inspectorate

About this presentation

- Industry and accident statistics
- Photo presentation 1: work at height
- European and Dutch regulations
- Occupational health and safety
- Work at height
- Using personal fall protection equipment
- Photo presentation 2: fall protection equipment in use
- The future
- Co-operation and export opportunities

Workers at risk of falls

- The Netherlands: 17 million people, 7 million employees, 1 million self-employed
- About 0.5 million in construction and related industries
- About 150,000 regularly work at height
- About 15,000 may use personal fall protection equipment
- Similar proportions across Western Europe, and possibly throughout the EU

Trades most likely to use personal fall protection equipment

- Rope access specialists
- Sheeters, cladders and tilers
- Window cleaners and painters
- Other building workers
- Emergency services

Accidents

- Source: Netherlands Labour Inspectorate database for the building industry, analysed in 2007
- Figures for 1998-2004:
 - total accidents 2,500
 - falls 21%
- Most common causes: inadequate procedures, lack of communication, substandard equipment

Culture/geography/economics

- Affect choice of materials and equipment when working at height
- Introduction to photo presentation:
work at height in the Netherlands and Western Europe

Photo presentation 1

Amsterdam – Brussels – Kiev

- Health and safety regulations
- EU determines 85% of member states' national rules
- European Temporary Work at Height Directive
- Scope and application of the Dutch Health and Safety at Work Act

European Temporary Work at Height Directive (2001/45/EC)

Formally enacted in the Netherlands in 2006

Tightens the rules on working with ladders, scaffolding and rope systems

Dutch health and safety law

- Framework legislation
- Sets objectives
- Employers and workers
- Other groups
- Supplementary regulations

Safe working for employers

- Risk assessment
- Company plan
- Safety-first strategy
- Ensure compliance

Risk assessment

- Per company: all risks (industry models)
- Per building/site/project
- Per job: task risk analysis

Company plan

- Health and safety culture
- Safety officer
- Accident and time-off-work analysis
- Specific and practical targets

Safety-first strategy

- Tackle risks at source
- Collective protection
- Personal protection

Supervision/compliance/ enforcement

- Certification/disciplinary measures
- Labour Inspectorate
- “The manager’s standards are the worker’s standards”

Health and safety: a question of...

- Good organization
- Influencing human behaviour

“Most people are the product of the context they find themselves in. They tend to ‘look up and look around’, and they do what others around them do or expect them to do.”

Treviño & Brown

Work at height

- Aids and tools
 - Vertical access
 - Fall protection equipment

Ladders

- Approved equipment
- Stable positioning
- Fixed/secured
- No danger to others (screening)
- For use by people only

Scaffolding

- Approved materials
- Qualified personnel
- Compulsory instruction
- Fall protection
- Laddering

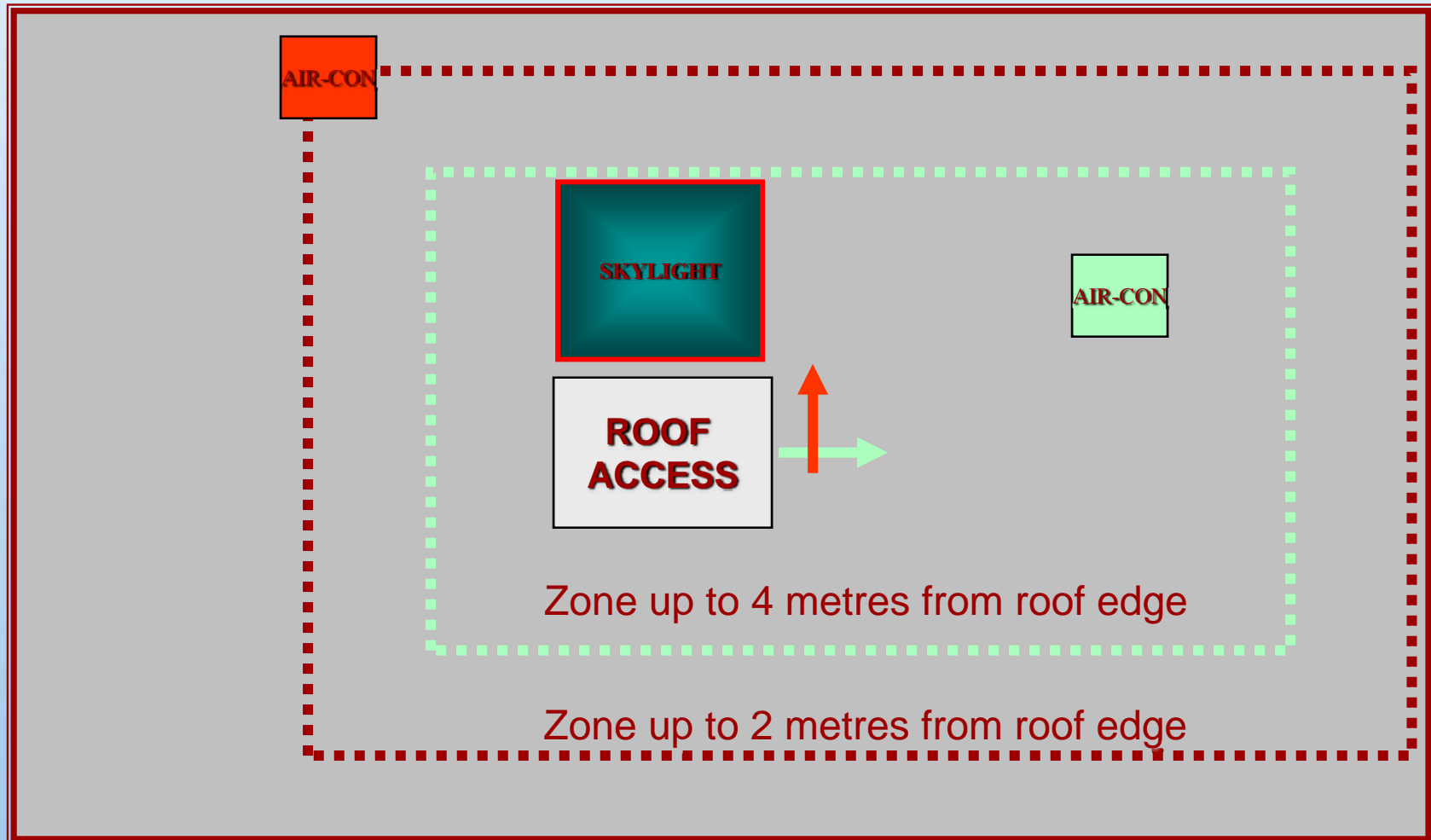
Guard rails

- Approved materials
- Compulsory from 2.5 metres
- 1 metre high
- One intermediate rail
- Meet at corners

Nets

- Strong material
- Correct mesh size (10 x 10 cm) to capture falling objects
- Securely attached
- Sufficient clearance underneath (no obstructions)

COLLECTIVE FALL PREVENTION: ROOF ACCESS



SAFETY PRECAUTIONS: COLLECTIVE AND PERSONAL



Roof
access

4-metre zone

Elevated work platforms

- Approved equipment
- User instruction
- Entering and leaving at height prohibited
- Stable positioning

Photo presentation 2

Safety-first-strategy in The Netherlands

Arrest, restraint and rope systems

- General
- Fall arrest systems
- Work restraint systems

Fall arrest systems: flat and pitched roofs

- Do not prevent falls, only limit the impact
- Additional precautions are therefore essential, eg. a lanyard or body harness
- On flat roofs, these precautions are sufficient to prevent falls

Work restraint systems: zoning of flat roofs

- Eliminates any risk of falling from the roof
- A good means of working safely on flat roofs

Rope access systems

- Anchor points
- Strong anchorage, safe positioning
- Dutch Standard NEN-EN 795
- Annual inspection
- Prevent lateral movement

Rope access systems

- Secure attachment
 - Link between harness and anchor point.
- Energy-absorbing safety ropes
- Fall-arrest equipment
- Rope grabs

Rope systems

- Lanyards

Protect against the effects of a fall, preventing injury or the user slipping out of the harness

Arrest, restraint and rope systems: CE-marking

European directives and CE marking

- To facilitate trade between EU member states
- Apply in all member states
- Criteria: health, safety, consumer protection, environmental protection
- When a product is covered by a relevant directive, CE marking is compulsory. When no directive applies, CE marking is prohibited
- Enforced by Labour Inspectorate

Arrest, restraint and rope systems: personal protection

- European PPE Directive (89/686/EC)? Enacted in the Netherlands through the PPE Order under the Commodities Act
- Official definition: “Any device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards”
- This definition does not cover permanently installed anchor points
- CE marking is not possible under this directive

Legislation

- Dutch Commodities Act, Article 18, prohibits the sale of unsafe products
- EU Construction Products Directive (89/106/EEC) covers “any product which is produced for incorporation in a permanent manner in construction works, including both buildings and civil engineering works”
- CE marking is not yet possible

Photo presentation 3

**Use of fall protection equipment
in the Netherlands.**

Opportunities for products from outside the EU

- In the future: c. 2015-2020
- More high-rise buildings
- More green roofs and energy roofs
- More roofs in everyday use
- More maintenance and upkeep

Opportunities for products from outside the EU

- Compliance with EU legislation.
- Innovative solutions.
- Meeting needs.
- High quality.
- Collaboration with local partners.

The Health and Safety Catalogue

A new way of helping Dutch companies
to find the right way of minimizing risk

Finally: some Dutch wisdom

Use your common sense

And keep both feet on the ground

Because only if you find a man who
can fly

Have you beaten the risks of working at
height!

**VEILIG
& GEZOND
OP HET DAK**



STICHTING
BEDRIJFSTAKREGELINGEN
DAKBEDEKKINGSBRANCHE

**Thanks for your
attention!**

**More information:
www.sbd.nl**