

# Work Instruction

SCHAEFFLER



FAG

Number: <b>U.29.0299.0072</b> Current index: 00	Date of creation/change: 18.04.2014	Page number: 1/7
<b>Safety of working on roofs</b>		
Created by: Krisztián DRIENYOVSZKI Signature:	Checked by: István TAMÁS Signature:	Approved by: Rita KENYERESNÉ V. Signature:

## Changes:

Index	No. of change.	Amendment	Date	Prepared by	Approved by
00	0	Creation of document	18-04-2014	István TAMÁS	Rita KENYERESNÉ VÖRÖS

## Annexes:

Annex 1 – Permit for works on the roof

Number: U.29.0299.0072 Current index: 00	Date of creation/change: 18.04.2014	Page number: 2/7
<b>Safety of working on roofs</b>		

## Table of contents

1. Objective .....	3
2. Scope of validity .....	3
3. Definitions .....	3
4. Description .....	3
5. Process and responsibilities .....	3
6. Information and notes .....	7
6.1. Related documents .....	7
6.2. Bibliography .....	7

Number: U.29.0299.0072 Current index: 00	Date of creation/change: 18.04.2014	Page number: 3/7
<b>Safety of working on roofs</b>		

## 1. Objective

Falling off the roof usually results in serious injury. The risks are great, in case of both long-term and short-term of work. The objective of the work instruction is to regulate this dangerous activity and to reduce the risk of serious injury to a minimum.

## 2. Scope of validity

The policy shall cover the premises of LuK Savaria Kft., as well as the leased premises of the Company.

The policy shall cover all persons who intend to get on the roof structure of the buildings of LuK and of the leased premises of LuK, and the persons who perform work there.

The entry into force and the amendment of the policy shall fall within the scope of power of the Managing Director. The policy shall be valid until withdrawal.

## 3. Definitions

Roof work: any activity carried out on the roof structure of the buildings of LuK and of the leased premises of LuK by the Company's own employee or by external parties.

Liaison (contact person): the LuK Savaria employee who orders/requests the work, or any person of at least middle-management position who makes the work preparations for persons carrying out the work, or hosts or escorts visitors.

## 4. Description

Works performed on the roof structure shall be ordered by the contact person in writing, for which the contact person shall fill out the form to be found in the annex of the work instruction. Making the preparations and then supervising the work are important tasks of the contact person.

## 5. Process and responsibilities

### 5.1. Preparations

#### Personal requirements

Number: <b>U.29.0299.0072</b> Current index: 00	Date of creation/change: 18.04.2014	Page number: 4/7
--	--	------------------

## Safety of working on roofs

Before works to be carried out on the roof, the personal and material requirements applicable to the employees concerned shall be inspected and documented. The form included in the annex is designated for this purpose.

It is important that the issuer of the permit is appropriately educated and that the issuer inspects the requirements specified in the permit.

The employees working on the roof require appropriate knowledge and practice in order to be able to carry out the work safely, or shall be under the supervision of such person. The employees shall be able to recognize the dangers and risks, shall know the appropriate working methods, and shall be skilled on completing tasks such as

- the installation and wearing of sling systems
- installation of guard rails
- setting up and use of scaffolding
- the local rules of working on roofs

Obtaining these skills usually requires training, provided it can be assumed that the employees do not apply the safety procedures on their own during the work.

It is prohibited to work on the roof alone! One of the persons carrying out the work shall be appointed in writing as the coordinator of the work. It will be the task of the person so appointed to control the observance of the rules related to safe work not endangering health, and to enforce such rules.

### Material requirements

Protection against falling shall be solved primarily through collective protection. This may mean scaffolding, personal lifting device, guard rail, cover, protective net or barricade tape drawn out 2 meters from the edge of the section with danger of falling. The guard rail shall be installed to be at the height of at least 1 meter, and 3 serial structures shall be mounted. The foot planks shall be suitable for averting the danger caused by falling objects. The guard rail shall be sized and set up so that it is able to hold a person crashing into it.

If collective protection is not feasible or only with rather great time and financial cost, then protection against falling may be realized with personal protective equipment as well. It is important that only total body slings may be accepted as personal protective equipment, and working position adjustment safety waist belts cannot be used for this purpose. The energy

Number: <b>U.29.0299.0072</b> Current index: 00	Date of creation/change: 18.04.2014	Page number: 5/7
--	--	------------------

## Safety of working on roofs

absorbent, i.e. the fall prevention device is an especially important part of the protection against falling. Without the fall prevention device, the personal protection system is not complete, and a possible fall may cause serious injuries. In addition, the tethering points shall be specified in writing. These points shall be able to bear the weight of the falling person(s) in case of a fall.

In any event, all pieces of (either collective or personal) equipment for protection against falling shall have the prescribed documentation.

Therefore, in particular:

- Hungarian operational/user manual
- the work equipment deemed dangerous shall undergo work safety installation
- scaffoldings shall have inspection report before the start of use
- the personal protective equipment against falling shall have EC type-examination certificate, marking and document verifying the review of any equipment older than 1 year.

### Organizational measures

It is important that unauthorized persons shall not be able to reach the roof during work. This may be realized e.g. through work permit system or closing the roof ladders. The placement of the appropriate warning signs on the existing roofs shall be ensured, especially at the roof access points.

In addition, the areas concerned by the risk of falling objects shall be marked visibly, and the persons working or passing through there shall be warned of the danger. If necessary, collective protection shall be set up against falling objects. As a last resort, protective helmet personal protective equipment shall be provided to the persons staying within the impact range of the work.

In order to ensure protection against falling objects, it is important to keep the working site clean. Raw materials or waste shall not be allowed to accumulate on the roof, since these could fall down. Nothing shall be thrown down from the roof. A closed waste shoot shall be set up for

Number: <b>U.29.0299.0072</b> Current index: 00	Date of creation/change: 18.04.2014	Page number: 6/7
--	--	------------------

## Safety of working on roofs

throwing down waste, or the material shall be lowered down with ropes to the ground. Leaving any material behind on the roof after the interruption or conclusion of the work shall be avoided, especially at weekends and on holidays. If any material is indeed left on the roof, then it shall be fastened safely, so that the windy, stormy weather cannot blow it off of the roof and cannot damage it either.

### 5.2. Other requirements

In order to prevent accidents, special safety measures shall be taken on roof structures which are unable to uphold the weight of the employees working on it with great safety.

The load bearing ability of the roof depends solely on the material thereof. The following factors are also important:

- the thickness of the material
- between beams
- slab profile
- the type, number, position and quality of the joints
- the construction of the supporting structure, e.g. ridgepoles
- the age of the material

The rigidity of roof structures is usually not homogenous. For example, there are several floor breakthroughs on it, special windows in the interest of natural lighting. If the rigidity or load bearing ability of the roof structure is doubtful, then the following guidelines shall be followed:

- Nobody shall work or cross the dangerous roof section, unless proper support is ensured by scaffolding, cover or any other similar solution.
- The supporting scaffoldings shall be long enough to provide proper support to the roof elements: they shall support at least two ridgepoles. The use of the scaffolding may distribute the burden, however, it does not provide adequate support if the only supporting point is the dangerous roof section.

In case of all dangerous roof sections, collective protection against falling shall be ensured if the roof section is closer than 2 meters to the working site or access route of the employees

Number: <b>U.29.0299.0072</b> Current index: 00	Date of creation/change: 18.04.2014	Page number: 7/7
<b>Safety of working on roofs</b>		

exposed to the risk. Boundaries may be established, which identify the working site and the “safe” areas including the access. If boundaries are used, then

- the boundaries shall be at least 2 meters from the dangerous roof section
- the boundary shall be a physical obstacle (at least warning tape)
- strict discipline is required, so that everybody stays within the safe area at all times.

### 5.3. Weather

It is prohibited to perform work on the roof structure in icy, rainy or windy weather. A sudden gust of wind can easily sweep a worker carrying a roof slab off the roof.

If the preparation of the desired roof work is proper, and the employees complied with the permit in all respects, then roof work requires that the employees wear reflective vests.

## 6. Information and notes

None.

### 6.1. Related documents

None.

### 6.2. Bibliography

None.