

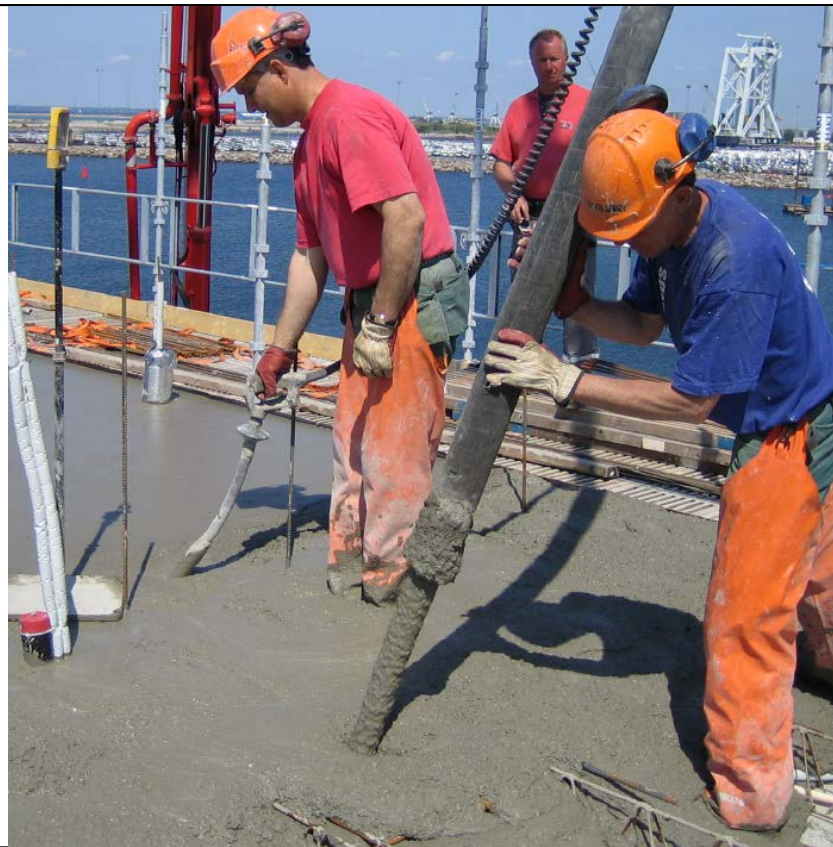
## *Casting with pump on filigree slab*

Pre-conditions

Preparation

Self-inspection

Execution



This **work instruction** is designed for use in detailed planning and preparation of work on construction projects. With thorough planning high levels of personal safety and optimal work apportionment can be achieved at the same time as the work can be organized efficiently and cost effectively.

Work activity & Problem	P	C	Risk= P*C	Action
Crane work during casting, crushing injuries	30	5	150	Education in crane routing and strapping
Slipping, stumbling	30	5	150	The substrate is checked. level difference, slight reinforcement, etc
Workplace disorder = Wriggling/fall damage	10	15	150	Regular cleaning
Concrete splashes, eye injuries	20	5	100	Goggles
Overload when working on concrete surface	30	1	30	Use "Tremix" vibrator plumb

Probability = P	P = 0,1	<b>Assessment of probability</b>	Very unlikely	(<1 times/10 years)	<b>Assessment of consequences</b>	C=0,5	Trifle
Consequence = C	P = 1	Unlikely	(1 times/10 years)	C=1	Tiny	( 1 - 2 days sick leave)	
Risk = P * C	P = 3	Low probability	(1 times/3 years)	C=5	Small	( 3 - 7 days sick leave)	
	P = 10	Relative probability	(1 times/year)	C=15	Tactile	( 8 - 29 - " - )	
	P = 30	Probable	(1 times/month)	C=70	Severe	(30-299 - " - )	
				C=500	Very severe	(>300 - " - )	

*Text from the Working Environment Authority's brochure Safer Construction Work*

## **Watch out for hidden risks!**

Surfaces that you walk on should have a safe bearing capacity so that you cannot pedal through.

Surfaces that do not have adequate buoyancy shall be sealed off (condoned) and marked unless manifestly unnecessary. If you still have to work on a surface with poor bearing capacity, special protective measures are required.

## **Personal protective equipment**

Safety helmets and safety shoes should be worn unless it is manifestly unnecessary. Other personal protective equipment e.g. eye protection, hearing protectors and gloves should be worn when needed.



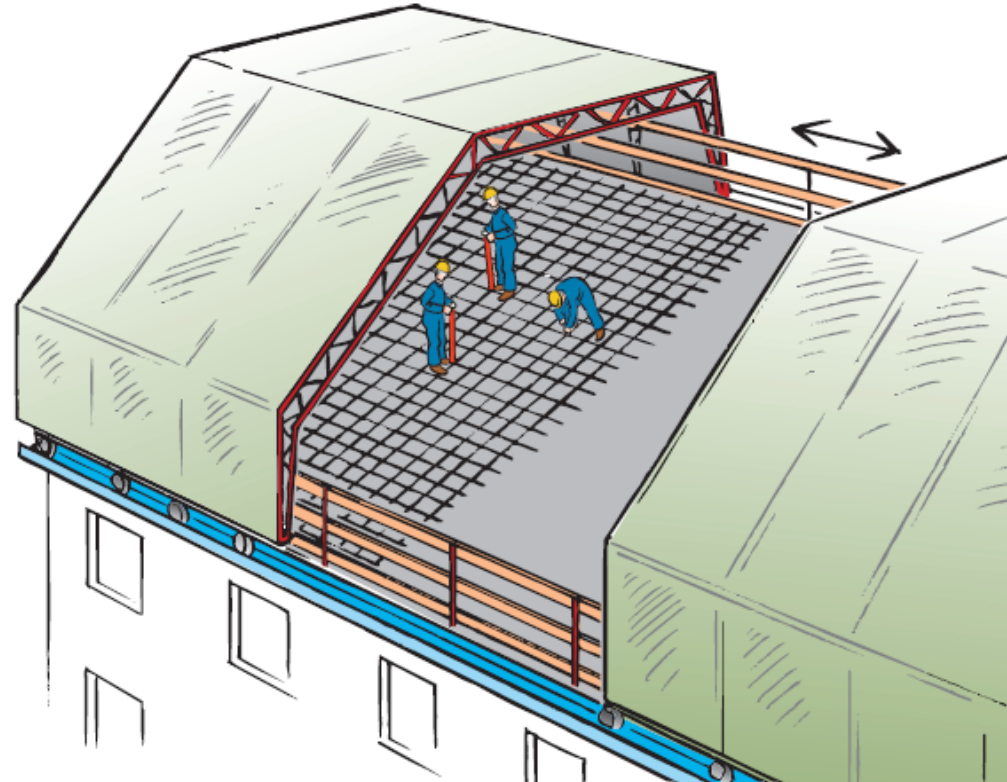
## Protection against the elements

Depending on the season, the nature and location of the construction, a covering of the workplace with weather protection can sometimes be a good solution.

It is important that the protection is sufficiently dimensioned and anchored to the snow and wind loads it may be exposed to.

Even prolonged or intense exposure to sunlight can be dangerous.

Also consider the risk of striking lightning.



## Equipment and machinery

## Equipment

- Pump or concrete bass
- Laser with stand receiver and cast plate
- 2 converters and 4 vibro rods
- Shovel
- Electric power at the casting site
- Water hose
- Bucket and brush for cleaning tools
- Cover mats, if any,

### För grinding

- Vibrating "sloda"
- Troweller

### For crane casting

- Crane with a basque with sufficient range



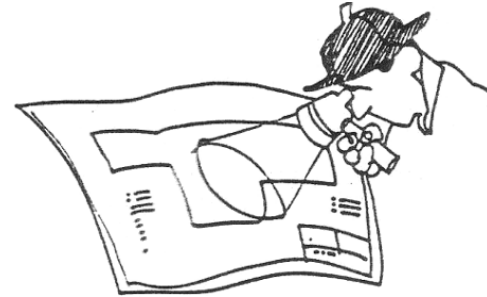
# Self-inspection 1(2)

## Template & instructions

No	Check	Method or equipment	Frequency	Result	Date Signature	Deviation/Remedy Approval/Non-A
1	Packing note, marking					
2	Lifting tools and mounting accessories					
3	Castings					
4	Communication equipment and signal schedule including command calls					
5	Transport route and site					
6	Punches, braces, pistons					
7	Measures in case of cold: * Additives * Insulation of the shape * Cover-up, if any. heating cable					
8	Measures in case of heat: * A-methods * W methods * W methods komb. m cooling coils * CC methods					
9						

## Quality criteria for the project and the product

- Study Drawings, Specifications and Inspection plan
- Think through the alternative **methods of production** and handling of materials, tools etc. that can meet the requirements



### *Pay particular attention to*

- check what is to be laid on top of the concrete surface – process the surface so that it is prepared for the next layer
- prepare slope against floor drain, etc.
- finishing should be done in conjunction with casting

## Three elements:

Reception concrete, vibrating and height control





## Grinding can be done in many ways with “sloda”/concrete leveller

The concrete leveller need to be washed occasionally



## Large areas require machines



Waste concrete has to be handled if not returned to factory!

Remember to cover casted concrete if necessary!



***See also separate work instruction on winter preparations***

***Keep in mind that:***

- ***Be prepared for rapid shifts in wind and temperature***
- ***There can be large temperature differences between day and night***
- ***It can be cold even during autumn and spring***
  - + ***10 degrees and lower can cause problems with concrete strength growth***

***Tips from manufacturer***

- Thin structures are at greater risk of cooling than structures with a large concrete volume
- Preserve the heat of the concrete from the factory
- Strong wind increases the risk of cooling
- Cover newly cast concrete surfaces quickly and also protect the formwork from cooling
- Calculate the expected cooling during the hardening phase.

***Plan for:***

- Additives
- Hot concrete,
- Formwork insulation
- Finishings