

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 in concrete casting, crushing injuries	30	5	150	Education in crane directing/strapping
Slipping, tripping	30	5	150	Surfaces checked re: level - differences, exposed reinforcement etc.
Cluttered workplace =Twisting or fall injuries	10	15	150	Regular tidying
Concrete splashing, eye injuries	30	1	30	Protective goggles
Screeding, overloading	30	1	30	Use the "Tremix" vibrating screeder or 'helicopter'

Probability = P
 Consequence = C
 Risk = P * C

Assessment of probability

P = 0,1	Very unlikely	(<1 times/10 years)
P = 1	Unlikely	(1 times/10 years)
P = 3	Low probability	(1 times/3 years)
P = 10	Relative probability	(1 times/year)
P = 30	Probable	(1 times/month)

Assessment of consequences

C=0,5	Trifle	
C=1	Tiny	(1 - 2 days sick leave)
C=5	Small	(3 - 7 days sick leave)
C=15	Tactile	(8 - 29 - " -)
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 hazards! § 60









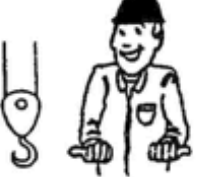
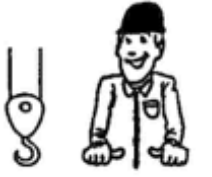








Surfaces that are to be entered should be of sufficient bearing strength that one will not fall through.

Surfaces that do not have adequate bearing capacity should be cordoned off and marked out unless it is clearly unnecessary. If you still need to work in an area with poor bearing capacity this will require special protective and strengthening measures.

Personal Protective Equipment § 71

Safety helmet and safety shoes shall be used unless it is clearly unnecessary. Other personal protective equipment such as eye protection, hearing protection and gloves should be worn when required.

(See also AFS 2008:13, Appendix 3)

 <p>Hoist Load</p>	 <p>Lower Load</p>	 <p>Hoist Load Slowly</p>	 <p>Lower Load Slowly</p>	 <p>Stop</p>
 <p>Swing Boom in direction indicated</p>		 <p>Lower Boom</p>		 <p>Emergency Stop</p>
 <p>Extend Boom</p>	 <p>Retract Boom</p>	 <p>Raise Boom</p>	 <p>Lower Boom</p>	 <p>Signal not understood</p>
 <p>Open</p>	 <p>Close</p>	 <p>Main Hoist</p>	 <p>Auxiliary Hoist</p>	 <p>Finished</p>

Equipment and machinery

Equipment

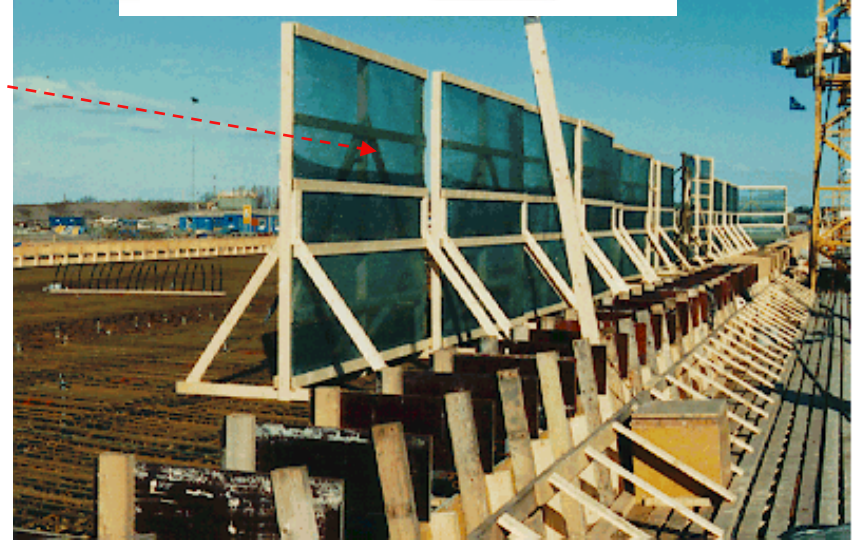
- Pump or concrete pourer
- Vibrator bridge
- Laser with tripod, receiver and base plate
- 2 converters and 4 vibrator poles
- Shovels
- Electrical power at the casting location. Lighting - floodlights.
- Water Hose
- Bucket and brush for cleaning tools
- Protective mats to floor. Possible windbreak

For surface finishing:

- Helicopter or vibrating trowel
- Trowel with trowelling blades or floating disc

For crane casting:

- Crane hose with sufficient range

Vibratorsloda

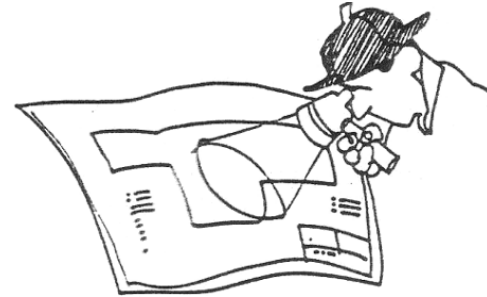
Self-inspection 1(2)

Template & instructions

No	Check	Method or equipment	Frequency	Result	Date Signature	Deviation/Remedy Approval/Non-A
1	Delivery notes, marking					
2	Lifting equipment and mounting accessories					
3	In-cast fastening products					
4	Communications and Signal schedule including command routines					
5	Transport routes and storage depots	ASS Directions No 58				
6	Props, supports framing					
7	Dealing with the cold: * Additives * Insulation of the formwork * Cladding, possibly heating cables					
8	Dealing with heat: * A-methods * W-methods * W-methods comb. with cooling coils * CC-methods					

Quality criteria for the project and the product

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



Pay particular attention to

- Before casting check that the securing and spacing of the reinforcement is designed so that requirements concerning positioning and topcoats are met.
- Check max c/c distance blocks
- Control what is to be laid on the concrete surface - work the surface so that it is prepared for the next layer
- Prepare fall towards wells etc.
- Surface treatment to be performed in connection with casting
- Measures to be taken during cold / hot weather to prevent freezing / drying out of the concrete

Ready for casting.
Equipment in place





The concrete is pumped, received, and vibrated.



Levelled
with
vibrator
bridge



Surface evening after which the surface is covered.



The casting takes time - now in darkness.



Demolition of the edge beams is initiated.
The protective covering is in place.

