FOUNDATION GUIDE
TECHNICAL CABINS- SHELTERS

FOUNDATION
The nature of the subsoil at the installation site is crucial for the choice of foundation of technical cabins and Shelters.

When applying the foundation the substrate must always consist of stable soil layers. The suitability of the methods has to be assessed based on the foundation soil, groundwater level and the effect of frost on the stability of the foundation.

Foundation in soil without casting and the groundwater level is below the freezing limit.

1. **Sand cushion**
- In order to achieve a stable soil layer, the upper soil layer is being removed.
- A sand cushion has to be piled up and compressed until it is stable.
- The sand cushion has to be adapted to the area of the concrete plate + 30 cm and with an angle of 45 degrees in relation to the concrete plate (see sketch 1.1).
- Evenness +/- 5mm over 10m

Foundation in soil without casting and the groundwater level is above the freezing limit.

2. **Sand cushion**
- In order to achieve a stable soil layer, the upper soil layer is being removed.
- A sand cushion has to be piled up and compressed until it is stable.
- Prepare perimeter drains to protect sand cushion against frost.
- The sand cushion has to be adapted to the area of the concrete plate + 30 cm and with an angle of 45 degrees in relation to the concrete plate (see sketch 1.1).
- Evenness +/- 5mm over 10m

Foundation in soil with the use of concrete without being dependend on the groundwater level with casting.

3. **Piling**
- Establishment of the technical cabin/ Shelter on at least 4 concrete pipes (ø 300 mm), all of which must be grounded in frost-free depth and on a stable base according to local regulations.
- The pipes are filled with concrete according to the correct environment - and exposure class.
- The number of tubes depends on the component placement in the cabin (by weight).

4. **Foundation edge/concrete beams**
- The technical cabin/ Shelter is set up on concrete beams
- The beams are being cast at the installation site and must be founded into the frost-free depth and on a stable base according to local regulations.
- The number of beams technical cabin/ Shelter is set up on concrete beams can be obtained by Priess A/S upon order and depends on the component placement in the cabin (by weight).
- Flatness +/- 2mm over 2m

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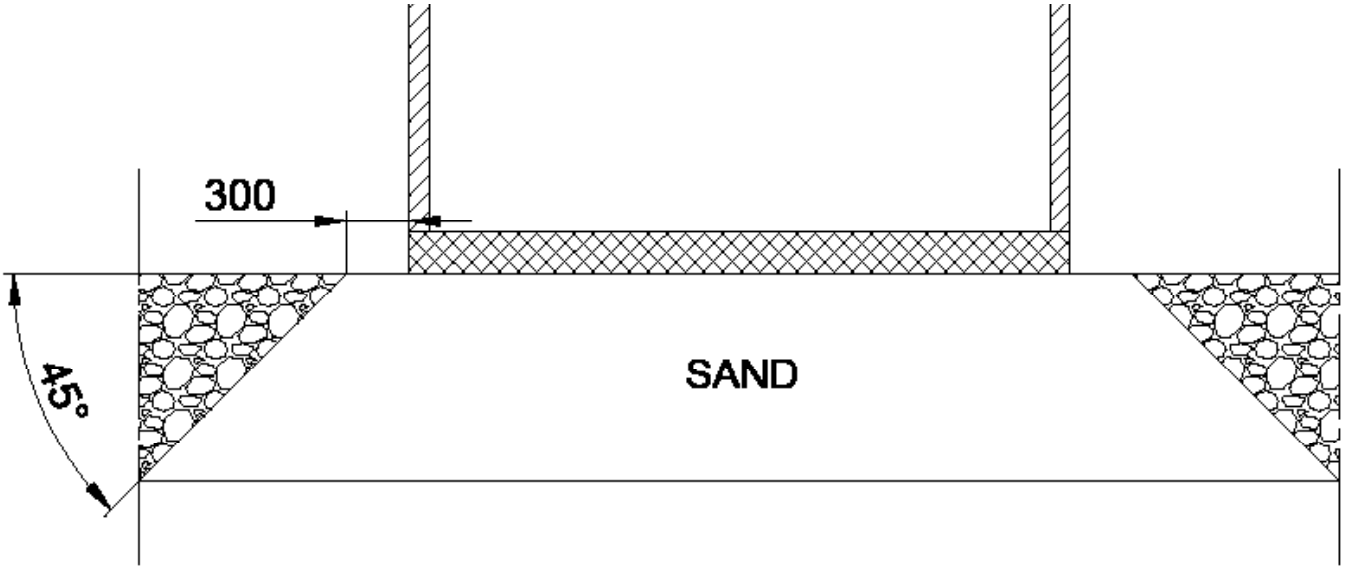
Sketch 1.1



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MEASUREMENT SPECIFICATIONS IN ACCORDANCE WITH ZTVE-STB 2009

COMPARATIVE VALUES ACCORDING TO TABLE		
Floor group according to 18196	**Dynamic deformation modulus Evd in MN/m²**	**Degree of compaction DPr in %**
GW, GI, DE	**>=50**	**>=100**
SE, SW, SI	**>=40**	**>=98**

Floor group - Floor classification in accordance with DIN 18196
Coarse-grained floors

Grain sizes - Mass proportion		Groups		Abbreviation (Assembly symbol)	Characteristics	Main groups
<=0.06mm	<=2mm					
less than 5%	up to 60%	Gravel (Grant)	Narrowly graded gravels	GE	Sharp grain line as a result of prevalence of one grain size range	Coarse-grained floors
			Widely graded gravel-sand mixtures	GW	Continually variable grain line over several grain size ranges	
			Intermittently graded gravel-sand mixtures	GI	Mainly staggered grain line as a result of absence of one or more grain size ranges	
	over 60%	Sand	narrowly graded sands	SE	Sharp grain line as a result of prevalence of one grain size range	
			widely graded sand-gravel mixtures	SW	Continually variable grain line over several grain size ranges	
			Intermittently graded sand-gravel mixtures	SI	Mainly staggered grain line as a result of absence of one or more grain size ranges	