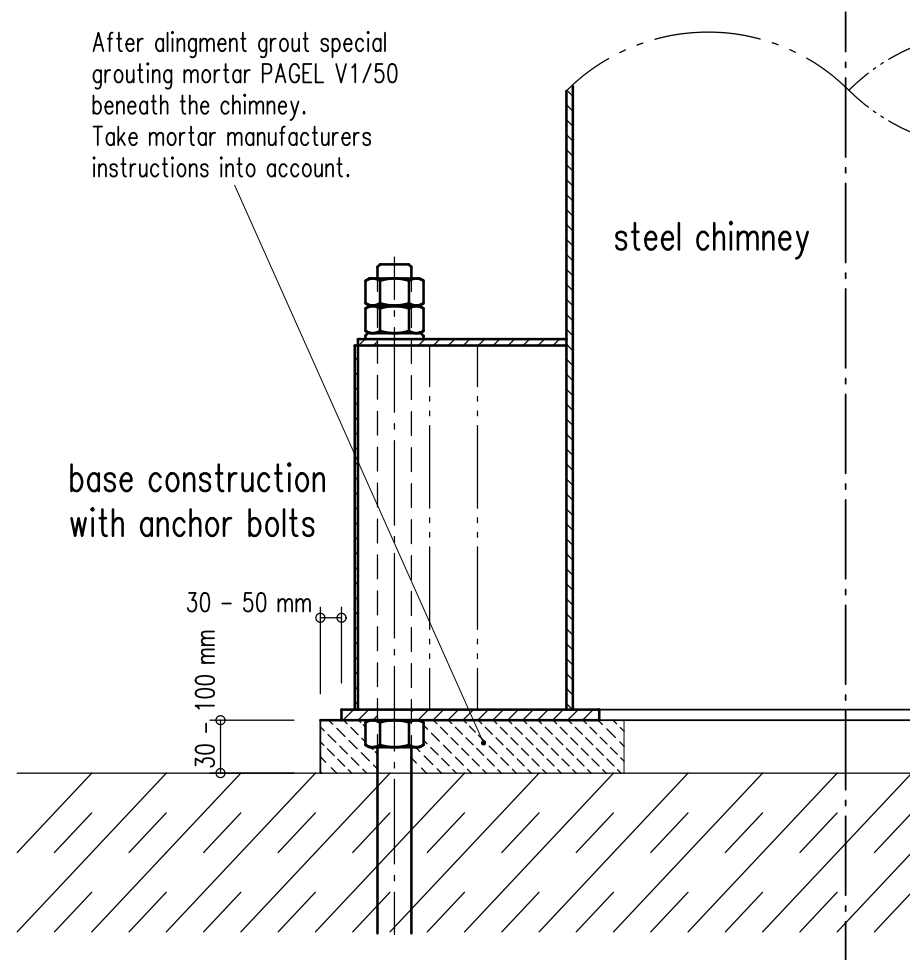


Design of construction joint beneath FETTE chimney base



Reinforced concrete foundation

Measures to be taken for the preparation of the concrete base

Take the necessary measures to obtain the concrete core tensile strength at the concrete surface in order to carry out a non-perishable connection between the concrete base and the grouted material.

The existing foundation concrete must at least correspond to the concrete compressive class C 20/25 and be at least 14 days old to serve as a base for the grouted material.

If the concrete quality corresponds to the concrete compressive class C 30/37 or more, the concrete can be ≥ 7 days old.

This waiting times are required to ensure that the foundation concrete shrinking process has largely been concluded when the grouting is carried out. In order to obtain a non-perishable connection the existing concrete base is to be prepared in a way to achieve a slip-proof and sufficiently solid surface structure solidity with $\geq 1.5 \text{ N/mm}^2$. For this purpose all the surface components that are not perfectly adhering such as impurities and cement elutriations are to be completely removed.

The time needed for preparing the concrete foundation can be considerably reduced when the concrete surface is swept with a hard-bristle broom during the fresh phase to remove the adhering and not completely hardened cement elutriations.

Preparation of steel contact surfaces of the steel chimney

Make sure to remove adhering oils and greases from the contact steel surface before carrying out assembly to ensure non-perishable connection of the grouting material. A light rust film adhering to the steel surface is unproblematic and need not to be removed.

Anchoring, vertical alignment and leveling of the steel chimney

Ensure the exact alignment and fixing of the chimney before grouting the steel flange bearings. No further alignment may be made once the grouting material has been placed.

Pre-dunking of prepared concrete base

The concrete base is to be pre-dunked for a sufficient period – for at least 6 hours – until saturation and until capillary suction of the concrete base has been concluded. Any water standing possibly on the concrete surface is to be blown off with oil-free compressed air. The grouting mortar is built in on the moist concrete base.

Formwork material

Non-sucking and/or coated formwork material is to be used for the formwork and it is to be fixed tightly and inherently stable. If possible make the formwork some centimetres higher than needed for grouting. With this formwork you can pour on water after the mortar surface has hardened, and water can be left on the mortar surface until retracting the formwork.

Mixing of the grouting material

A sufficient quantity of the grouting material V1/50 PAGEL – VERGUSS needed for grouting the support rim of the steel chimney is to be prepared and mixed in a way to ensure uninterrupted grouting.

Fill water – except a residual quantity – into the compulsory mixer, add dry mortar and mix for approx. 3 minutes; add the remaining water and mix for approx. another 2 minutes until obtaining a homogeneous mixture. Carry out grouting process immediately.

Pouring in the grouting material

The grouting material is to be continuously poured in at one point (without interruption), so that it is distributed up to the complete grouting height and without air bubble inclusions beneath the concrete base and the base ring of the steel chimney. If the material is to be poured in at another point, the grouting material should be there already at sufficient height to avoid air bubble inclusions.

The steel base plate and/or base ring is to be grouted in a way to ensure a saturated base grouting of the support.

The grouting cant in the outside area of the steel plate and/or steel ring amounts to max. 1/3 of the plate thickness.

After-treatment and retracting terms


The temperature range for processing the grouting materials is between $+5^\circ\text{C}$ and $+35^\circ\text{C}$.

At a temperature of approx. $+20^\circ\text{C}$ you can retract the formwork and charge after 24 hours already.

At $+5^\circ\text{C}$ the waiting times are extended so that retracting and charging can only be carried out after 3 days.

The grouting surfaces that are visible after retracting the formwork are treated over a minimum 5-day period by wetting with water or by placing jute bags to be kept moist on the surfaces with foil on top of them and/or by covering with thermofoil.

Alternatively the grouted surfaces that are visible after retracting the formwork can be sprayed with a protective sealing film 01 PAGEL-VERDUNSTUNGSSCHUTZ, whereas 200 g/m² should be sprayed on.

Index	Datum	Name	Änderung	
Maßstab . / .	Grouting instructions for special grout mortar PAGEL V 1/50 beneath FETTE-Chimney base			Zeichnung Nr. 3.7030.3-3-En
Bearbeiter	Datum	Name	 GMBH UMWELTECHNIK BAD SALZUFLEN	Das Urheberrecht an dieser Zeichnung verbleibt uns. Weitergabe, Kopieren und Nachbau nicht gestattet
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