



# NEN-EN 1992-4 EN CUR/BMS 10

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# VERSCHILLEN IN NEN-EN 1992-4 EN CUR/BMS 10 KOLOMVOETPLAATVERBINDINGEN



SIST EN 1992-4:2018

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 1992-4

September 2018

ICS 91.010.30; 91.080.40

Supersedes CEN/TS 1992-4-1:2009,  
CEN/TS 1992-4-2:2009, CEN/TS 1992-4-3:2009,  
CEN/TS 1992-4-4:2009, CEN/TS 1992-4-5:2009

English Version

Eurocode 2 - Design of concrete structures - Part 4: Design  
of fastenings for use in concrete

Eurocode 2 - Calcul des structures en béton - Partie 4 :  
Conception et calcul des éléments de fixation pour  
béton

Eurocode 2 - Bemessung und Konstruktion von  
Stahlbeton- und Spannbetontragwerken - Teil 4:  
Bemessung der Verankerung von Befestigungen in  
Beton

This European Standard was approved by CEN on 9 March 2018.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Ref. No. EN 1992-4:2018 E

# VERSCHILLEN IN NEN-EN 1992-4 EN CUR/BMS 10 KOLOMVOETPLAATVERBINDINGEN

## CUR/BMS 10

Taai vervormingsgedrag van de ankers is maatgevend boven (bros) betonbezwingen van ankers

Plastische vervorming van de voetplaat is maatgevend boven (bros) betonbezwingen van ankers

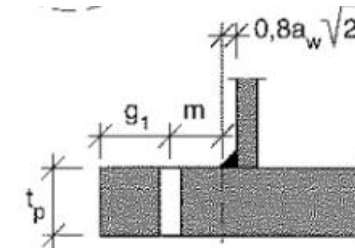
CEN/TS 1992-4-2;  
6.2.4

(10) Bij "ankers met mechanische verankering en korte lijmankers" en toepassing van de plasticiteitstheorie volgens 4.2(1) moet in verband met taai gedrag van de verbinding aan alle navolgende voorwaarden zijn voldaan:

$$\frac{0,5T}{N_{Rd,p}} \leq 1,0 \text{ en } \frac{1,25F_{t,Rd}}{N_{Rd,p}} \leq 1,0 \quad \text{óf} \quad \frac{0,5T}{N_{Rd,p}/1,7} \leq 1,0$$

$$\frac{T}{N_{Rd,c}^g} \leq 1,0 \text{ en } \frac{2,5F_{t,Rd}}{N_{Rd,c}^g} \leq 1,0 \quad \text{óf} \quad \frac{T}{N_{Rd,c}^g/1,7} \leq 1,0$$

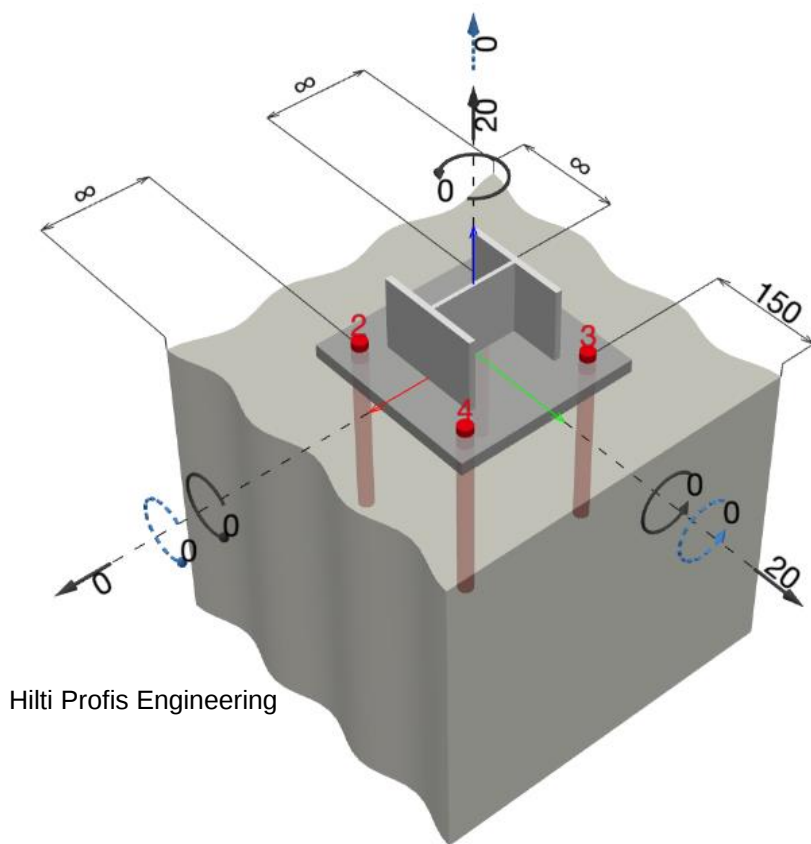
$$F_{T,Rd} = \frac{0,5M_{pl,Rd}}{m} \quad M_{pl,Rd} = 0,25b_p t_p^2 f_{yd}$$



# REKENVOORBEELD ZONDER WAPENING

Er hoeft niet aan eerste eis te worden voldaan als de rekenwaarde van de ankersterkte van betonbezwingen lager is dan 60 % ( $=1/1,7$ ) van de totale optredende rekenwaarde van de ankerlast.

U.C.  $\leq 59\%$  voor betonbezwingen



Lijmanker M20 Hilti HIT-HY 200

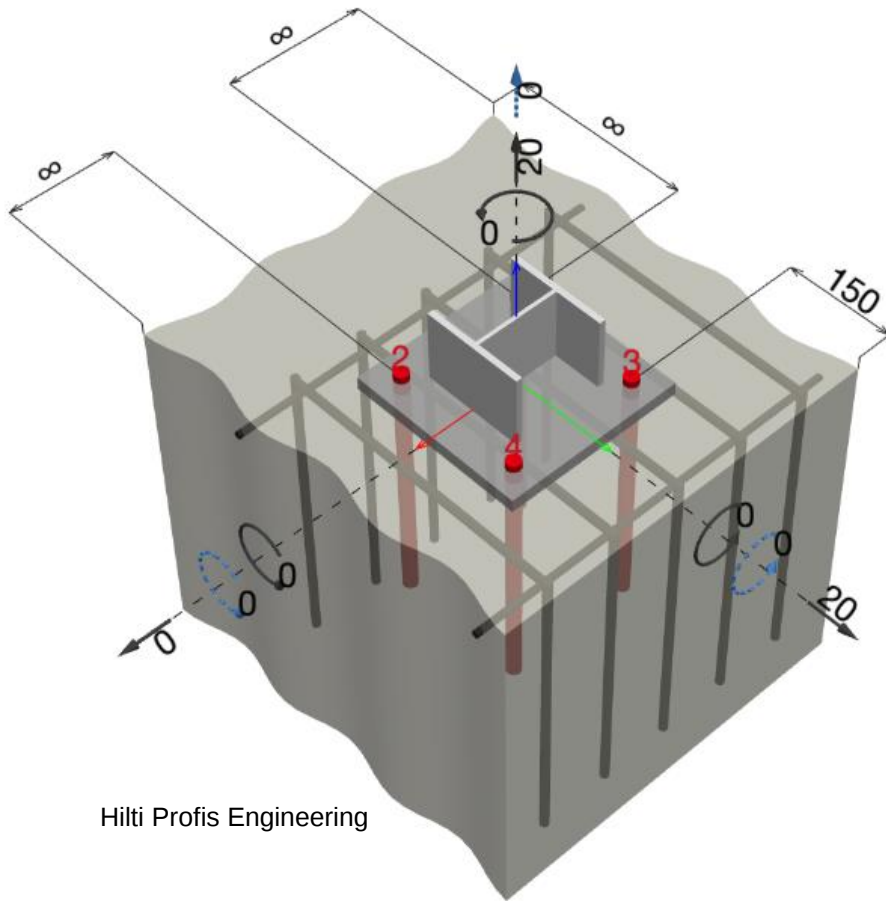
Inboordiepte **111 mm** met unity check **100%**

**Akkoord volgens NEN-EN 1992-4**

Lijmanker M20 Hilti HIT-HY 200

Inboordiepte **340 mm** met unity check **73% > 59 %**

# REKENVOORBEELD MET WAPENING



Lijmanker M20 Hilti HIT-HY 200

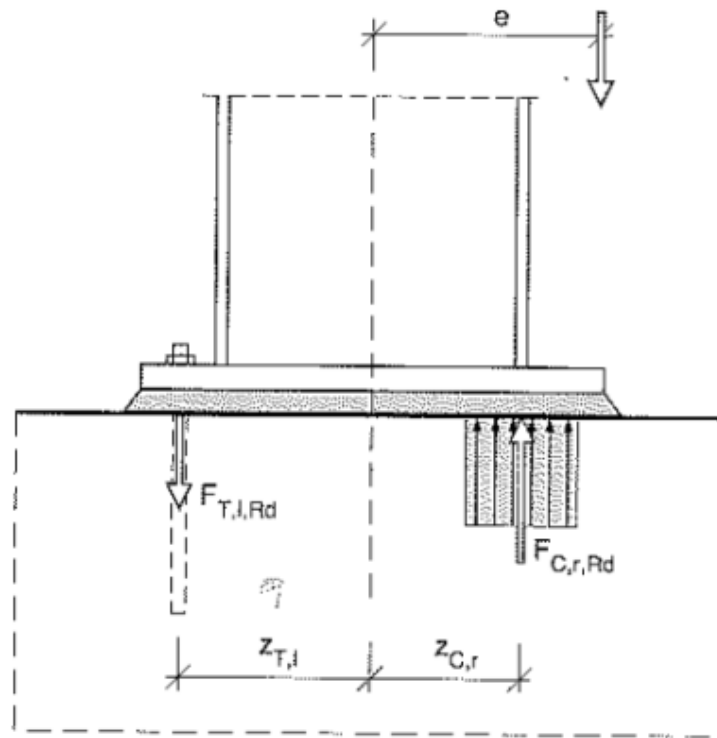
Ø12-100 haarspelden/beugels

Inboordiepte **240 mm** met unity check **59%**

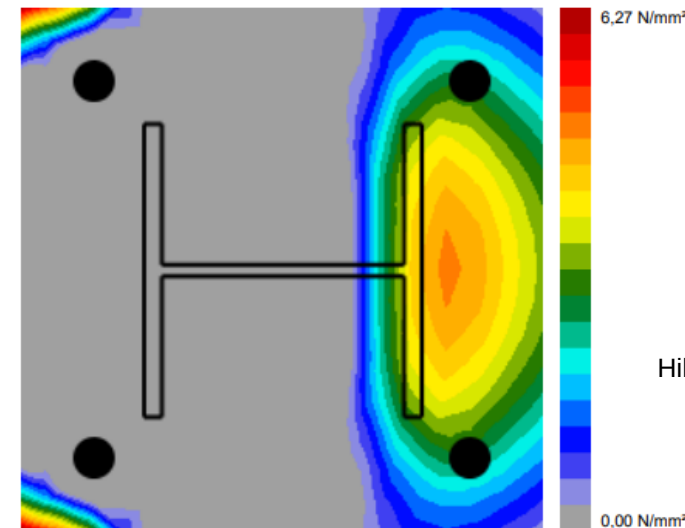
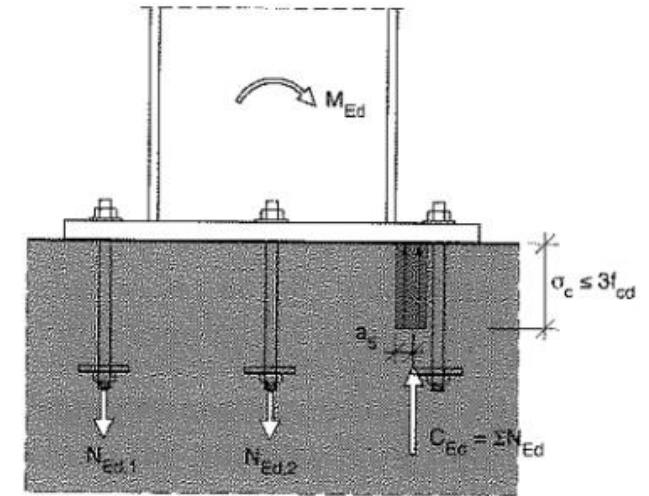
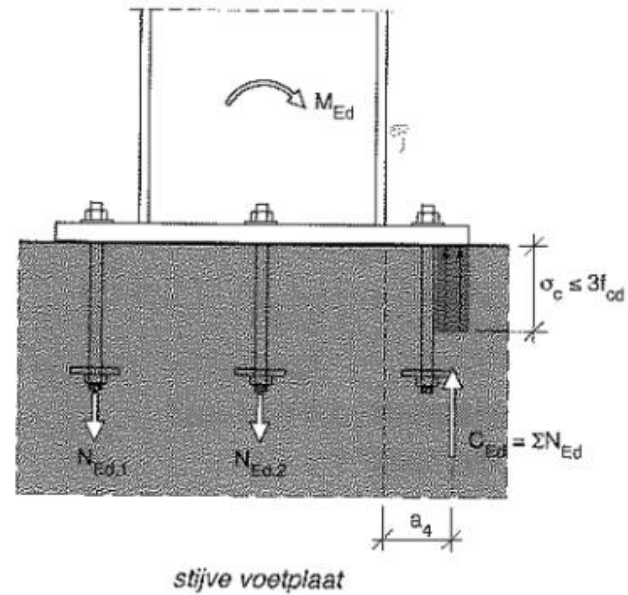
## CUR/BMS 10:

Verankeringslengte van wapening dient op basis van de maximale staalspanning worden uitgerekend.

# DRUKRESULTANTE ONDER VOETPLAAT



Notatie volgens NEN-EN 1993-1-8.  
Voor  $F_{T,l,Rd}$  is in dit rapport T gebruikt.



Hilti Profis Engineering

