

# Der neue HTL-Lehrplan

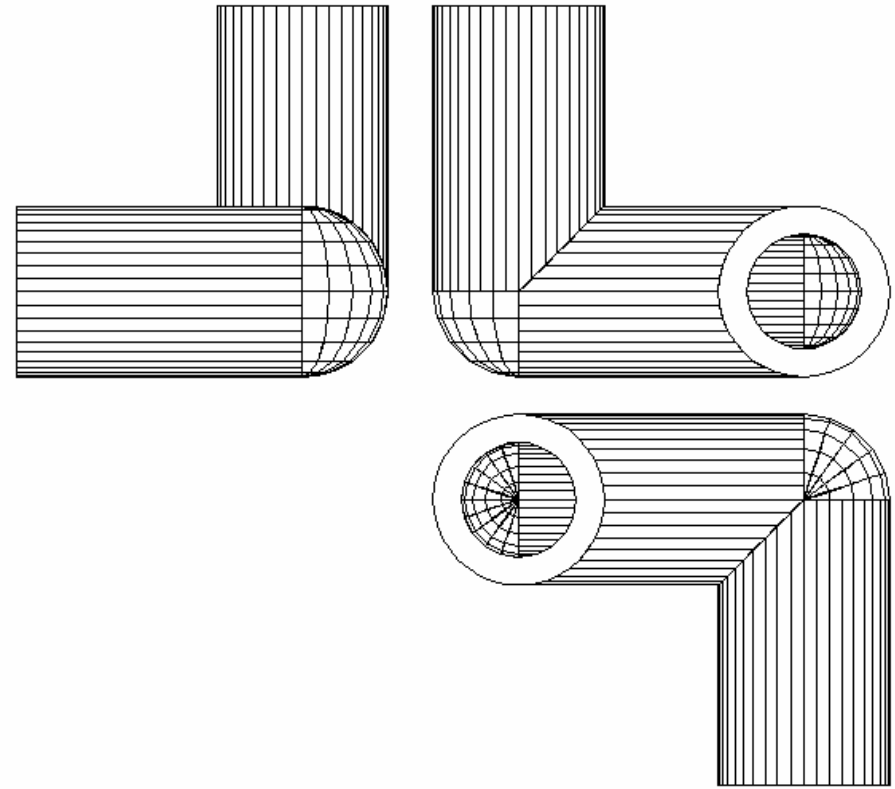
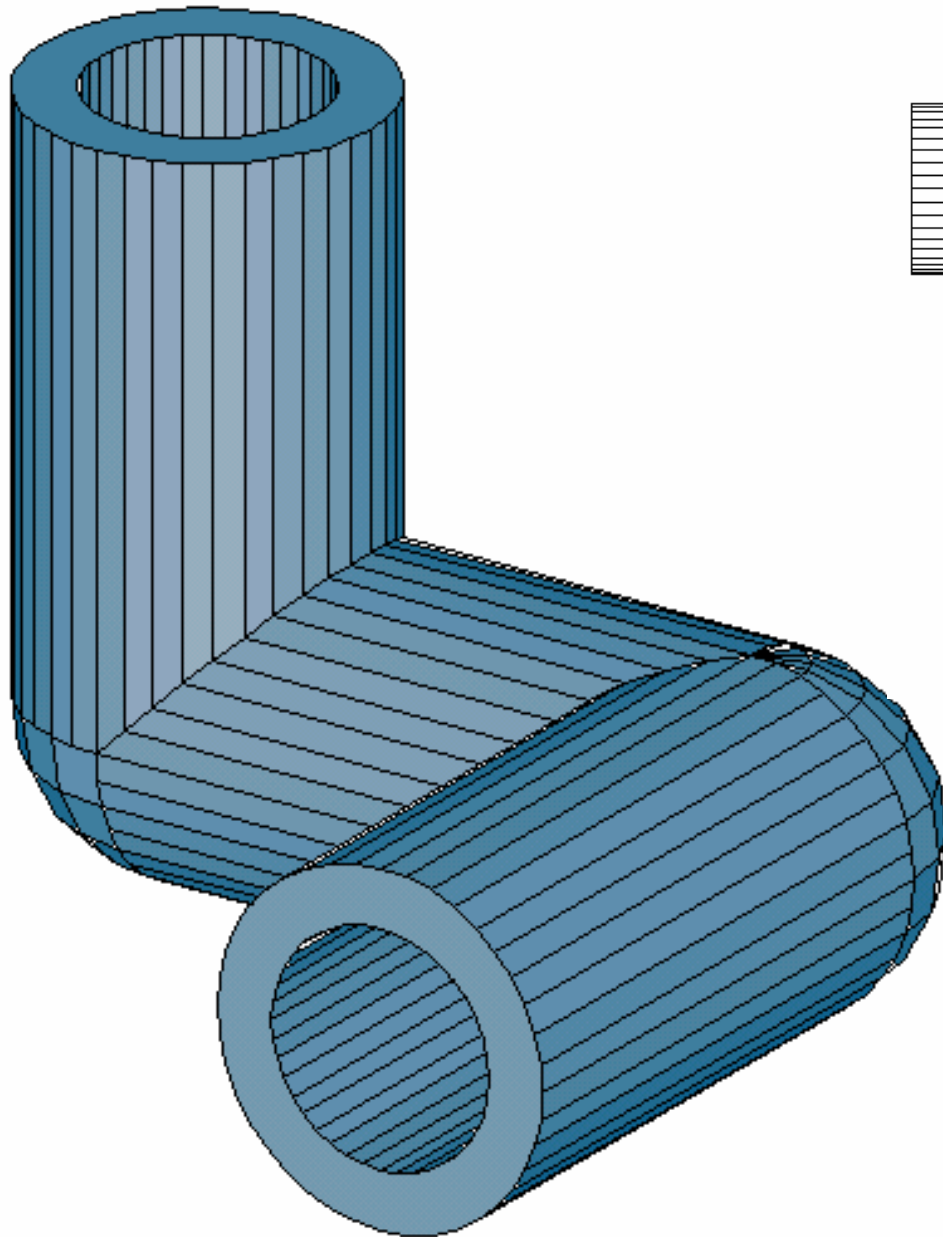
**Versuch einer Umsetzung**

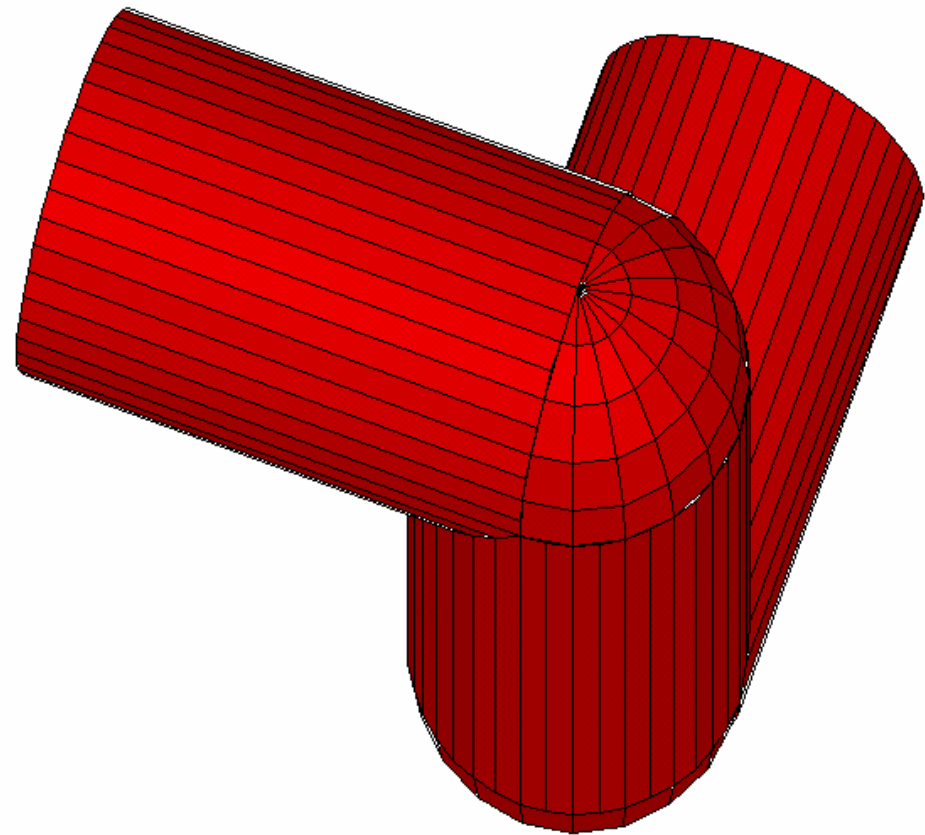
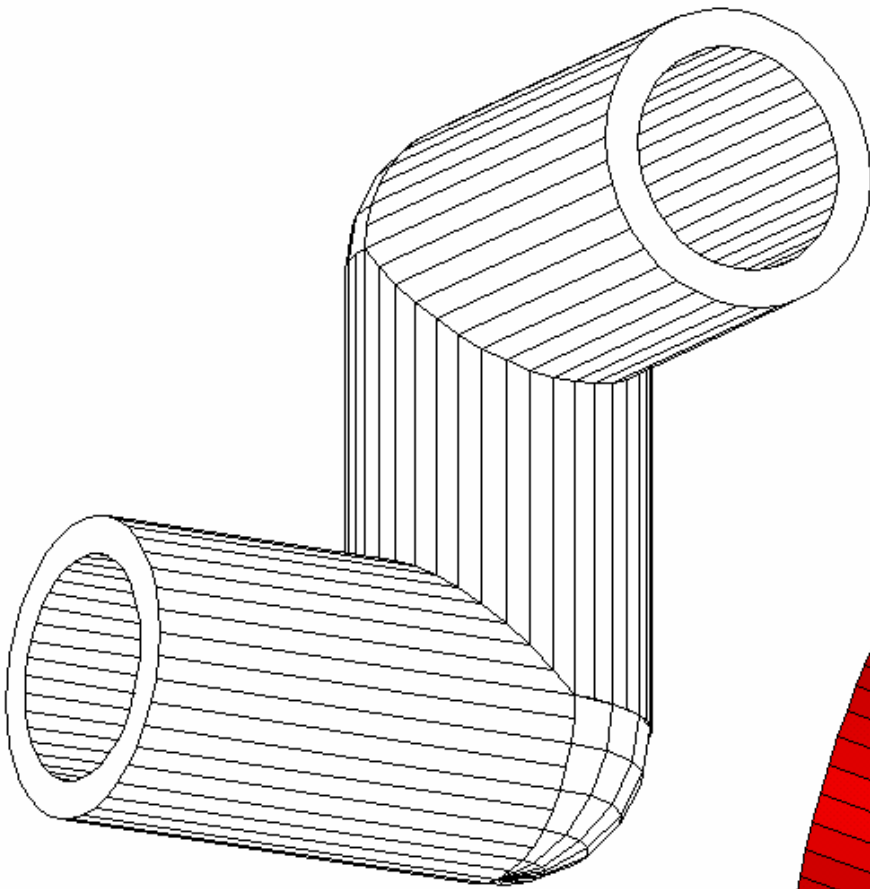
# Inhalt

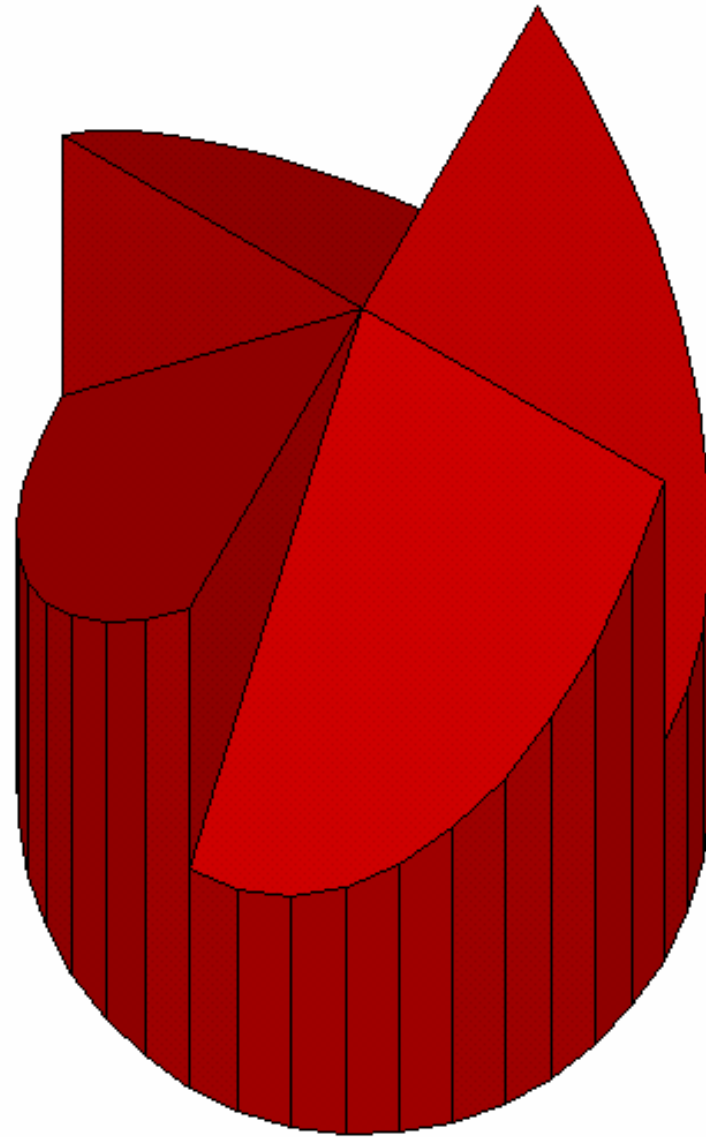
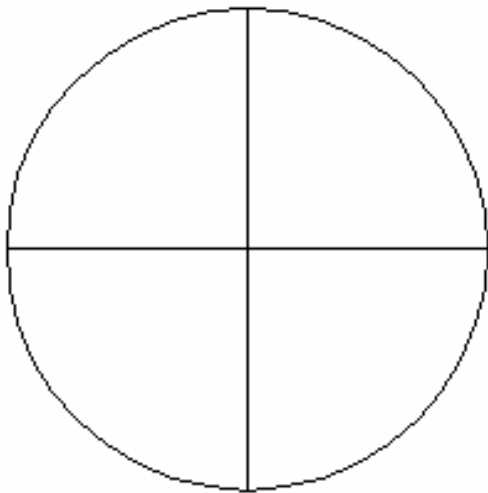
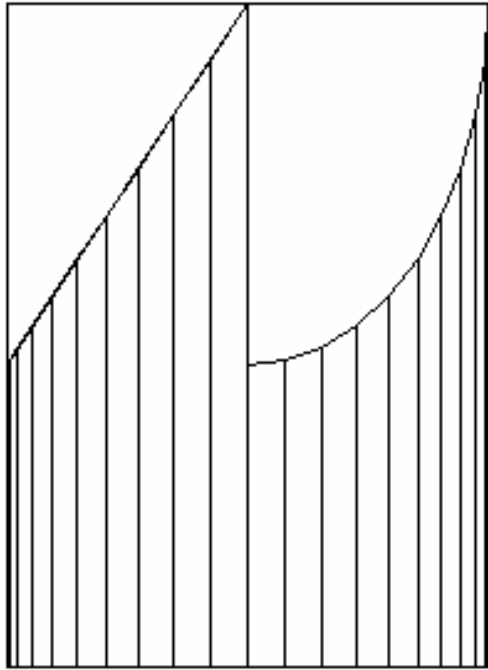
- ⊙ Bildergalerie aus dem Unterricht
- ⊙ Lehrplan 1998
- ⊙ Organisation des Unterrichts
- ⊙ Didaktische Überlegungen,  
Arbeitsformen, Leistungsbeurteilung  
anhand ausgewählter Beispiele

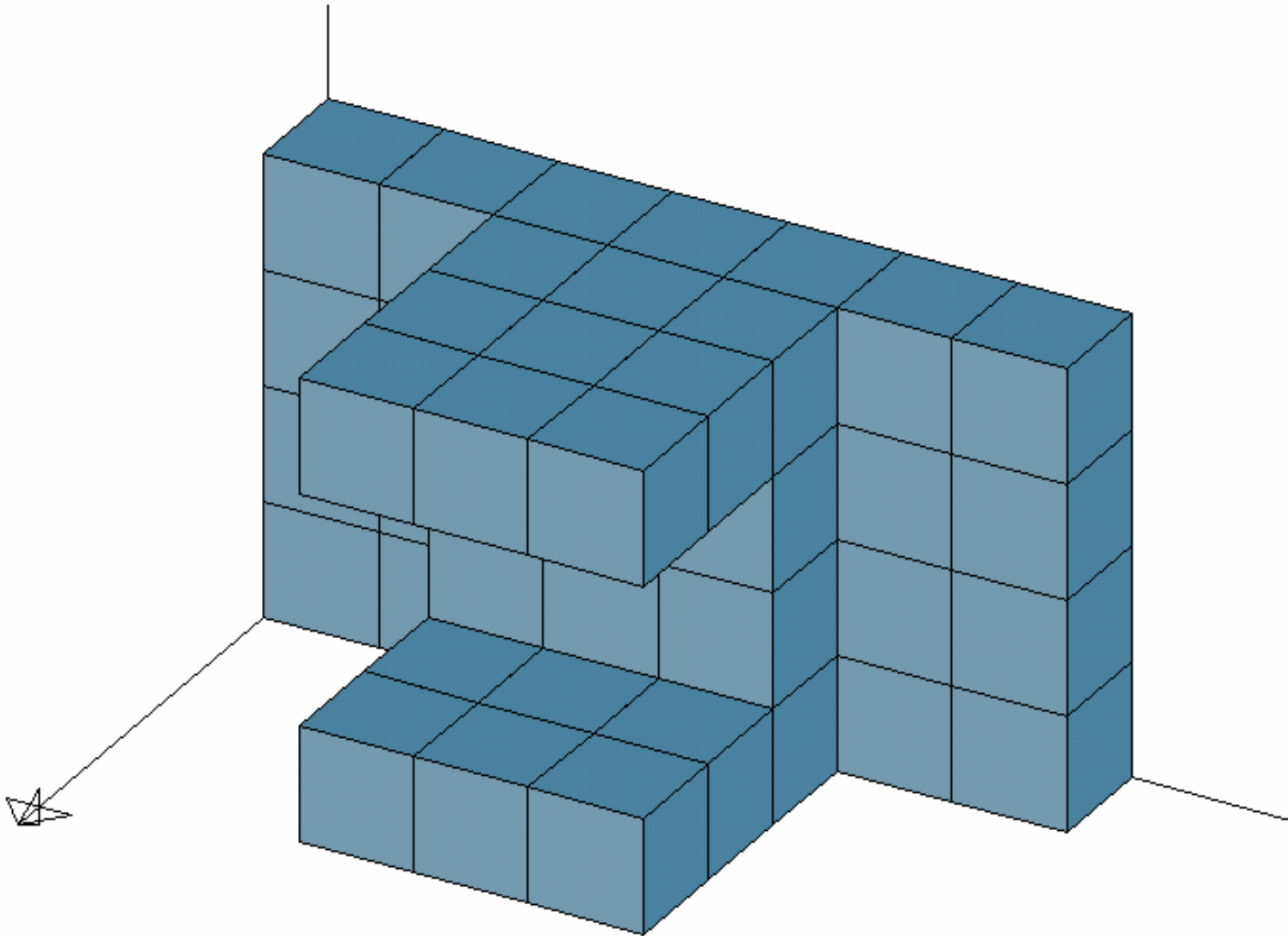
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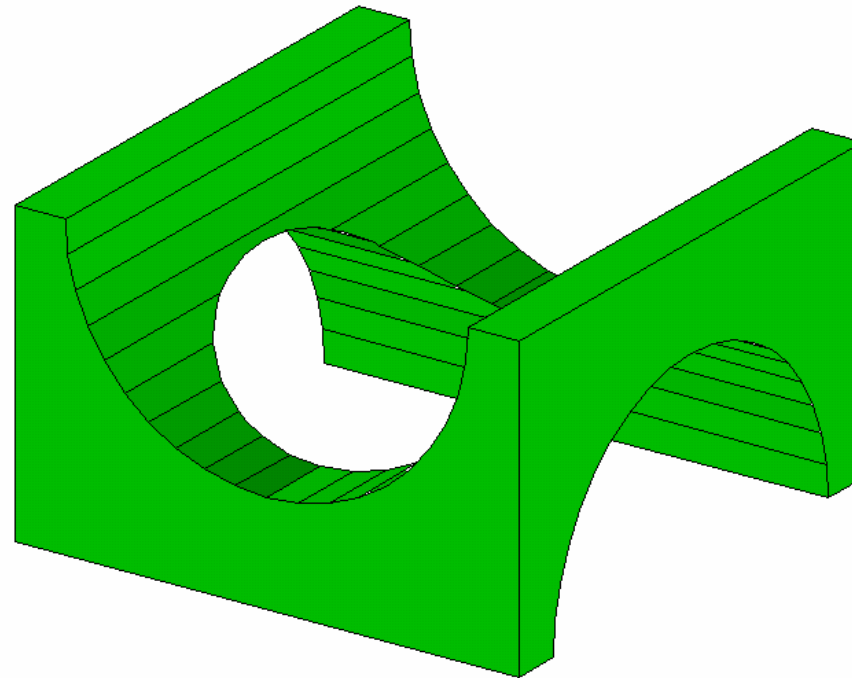
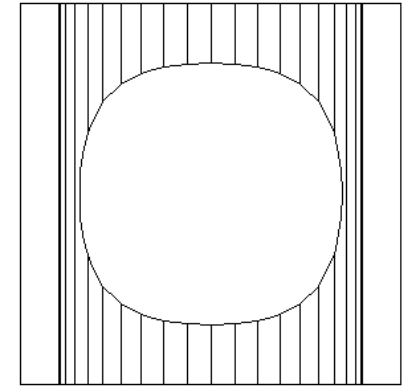
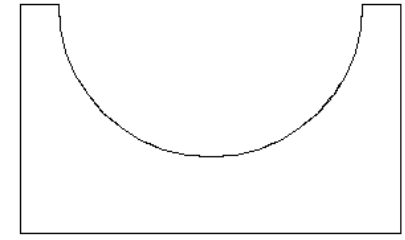
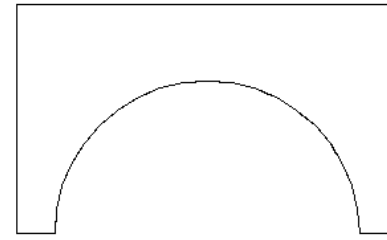
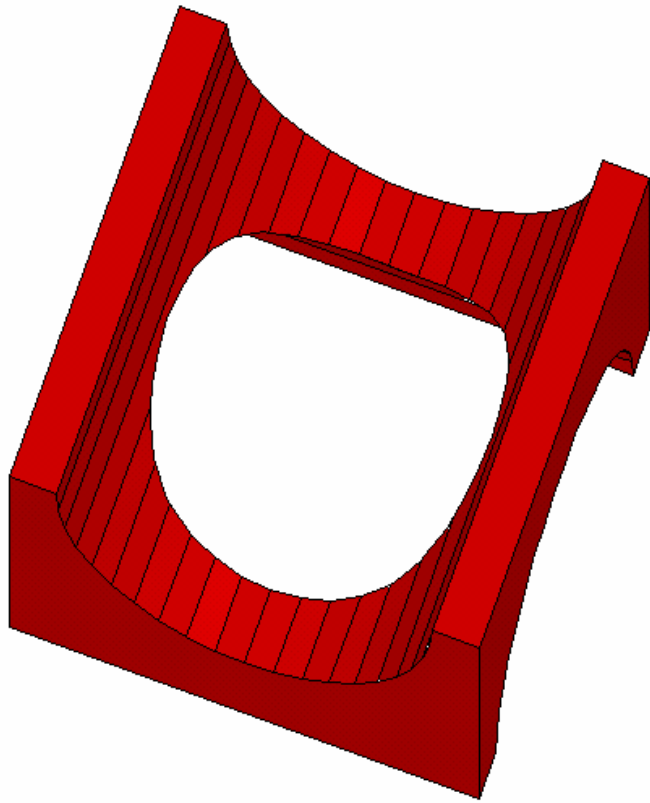
- ◎ **Bildergalerie aus dem Unterricht**
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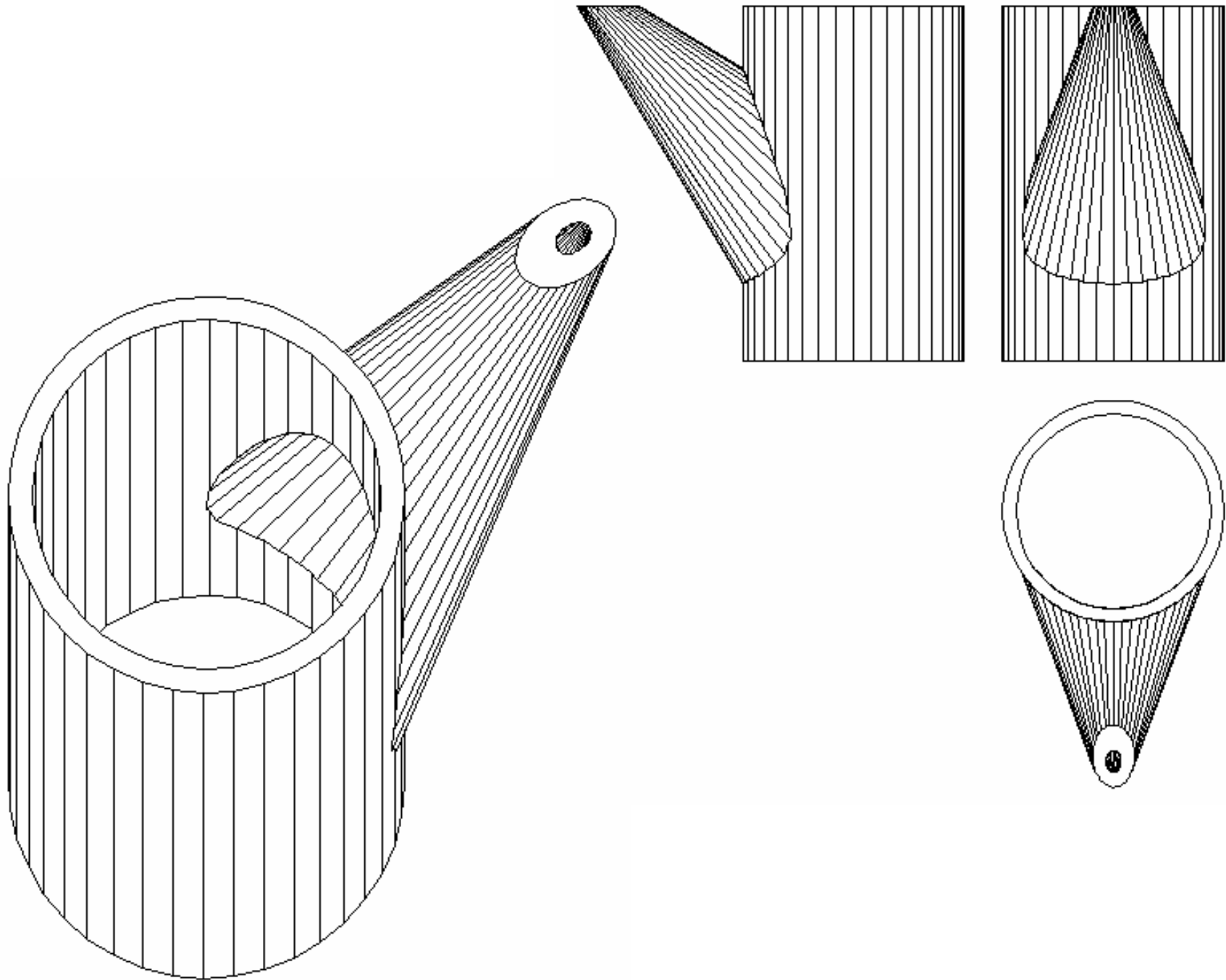


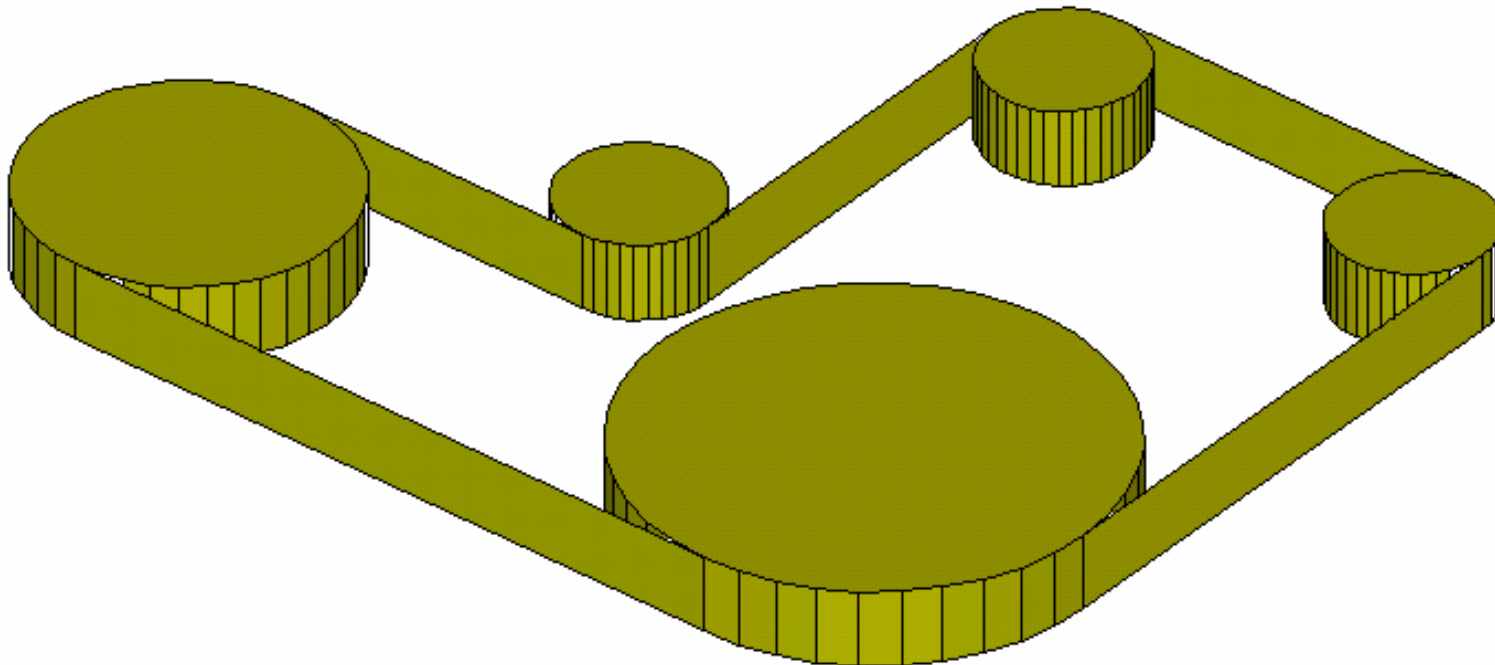


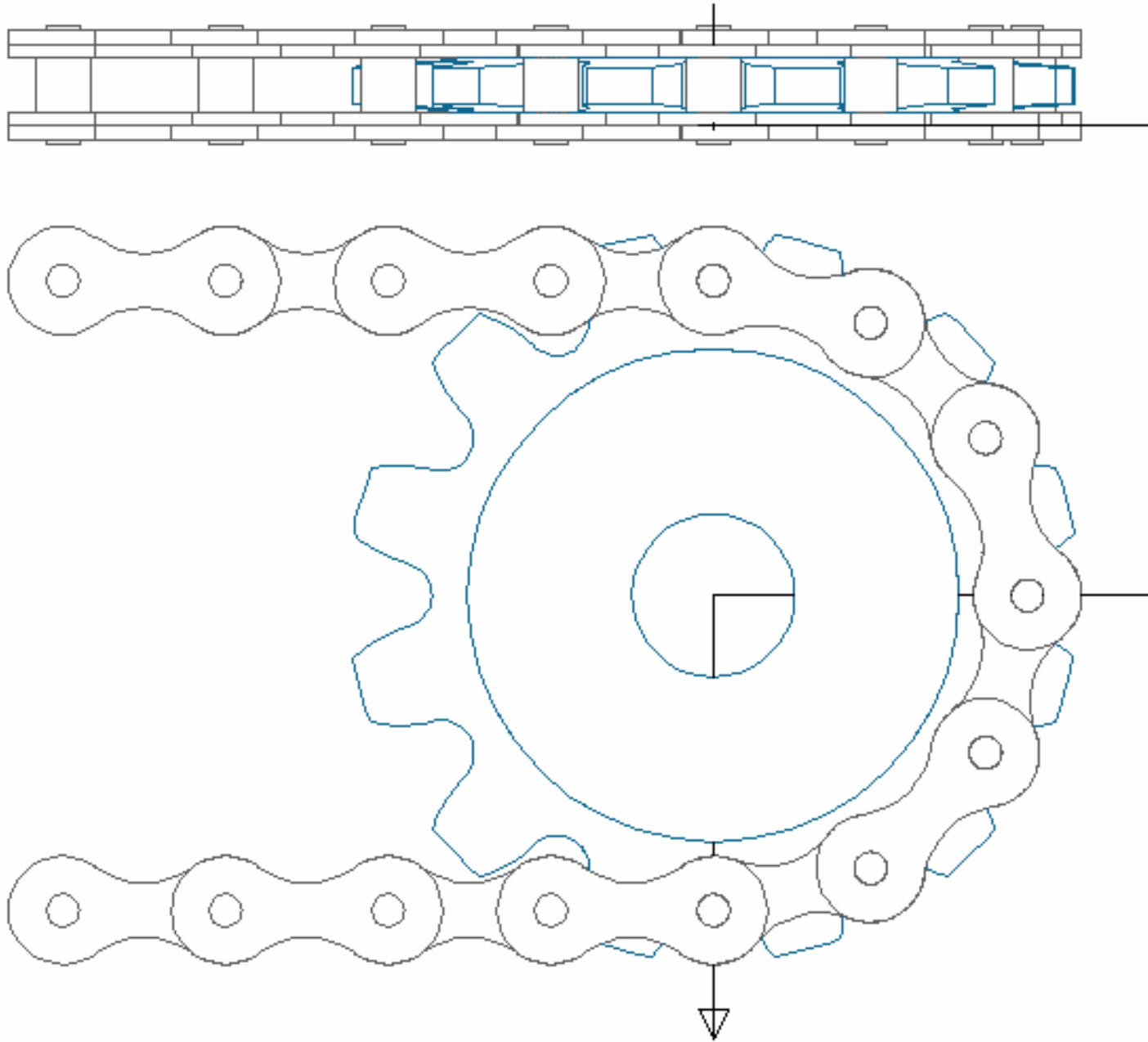


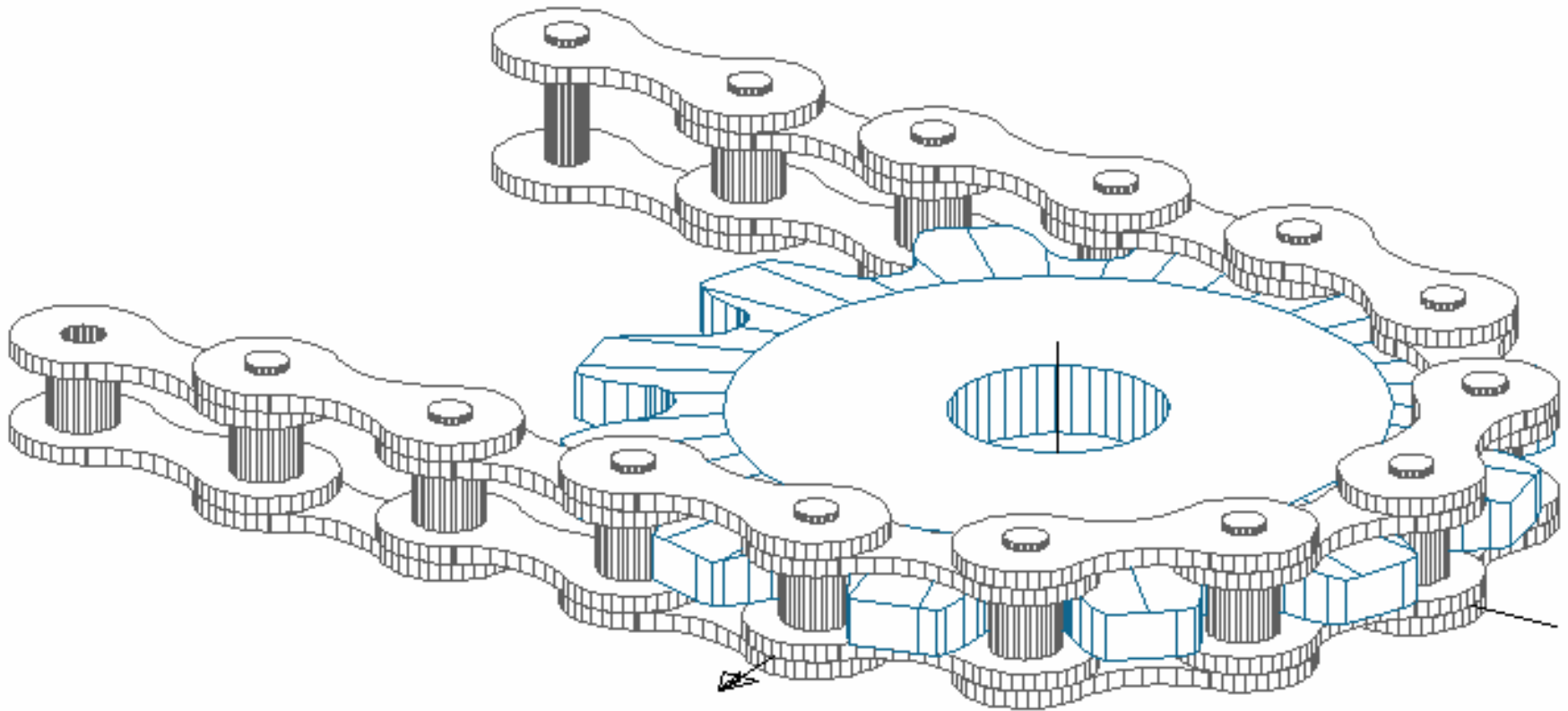


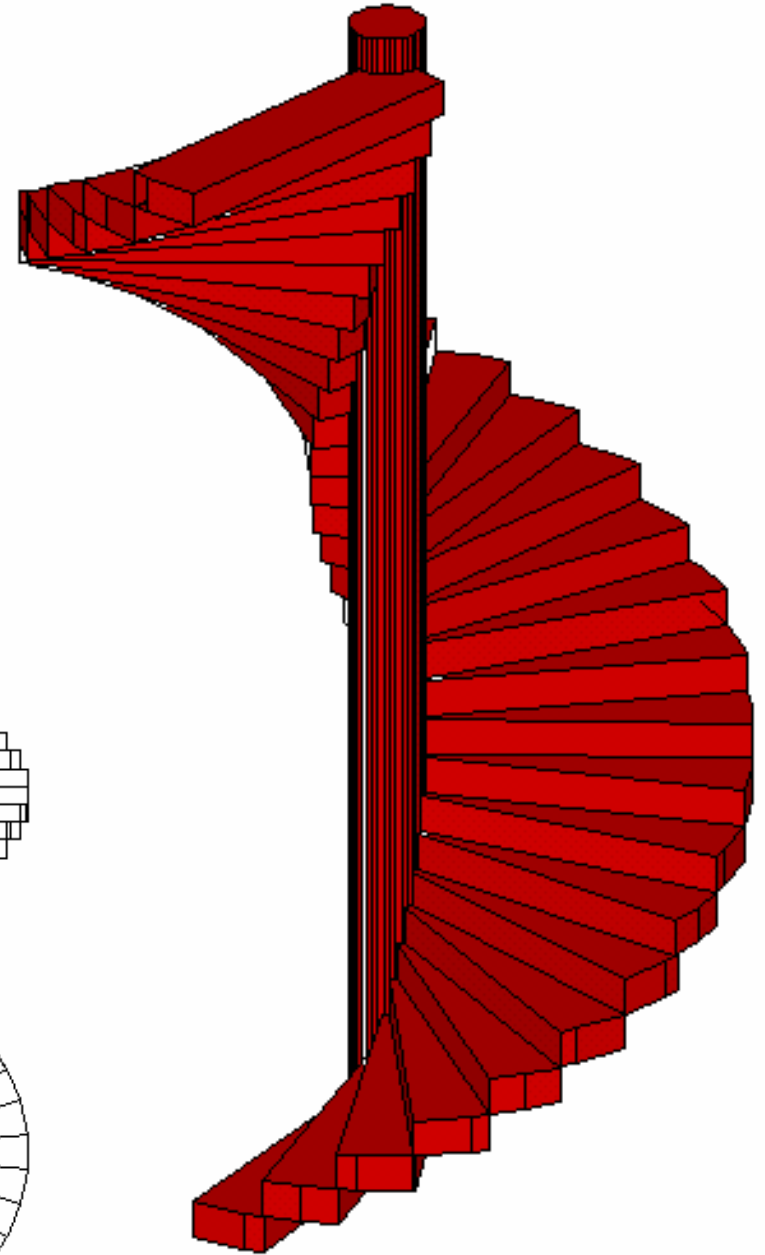
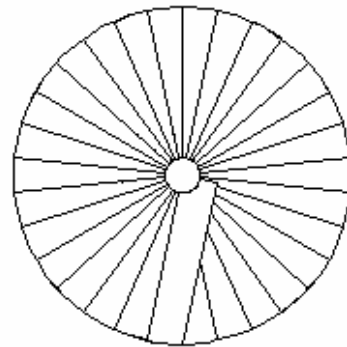
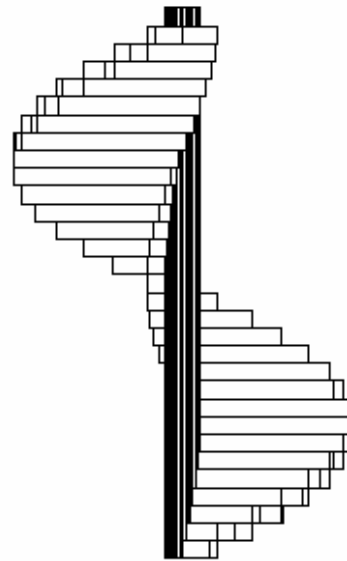
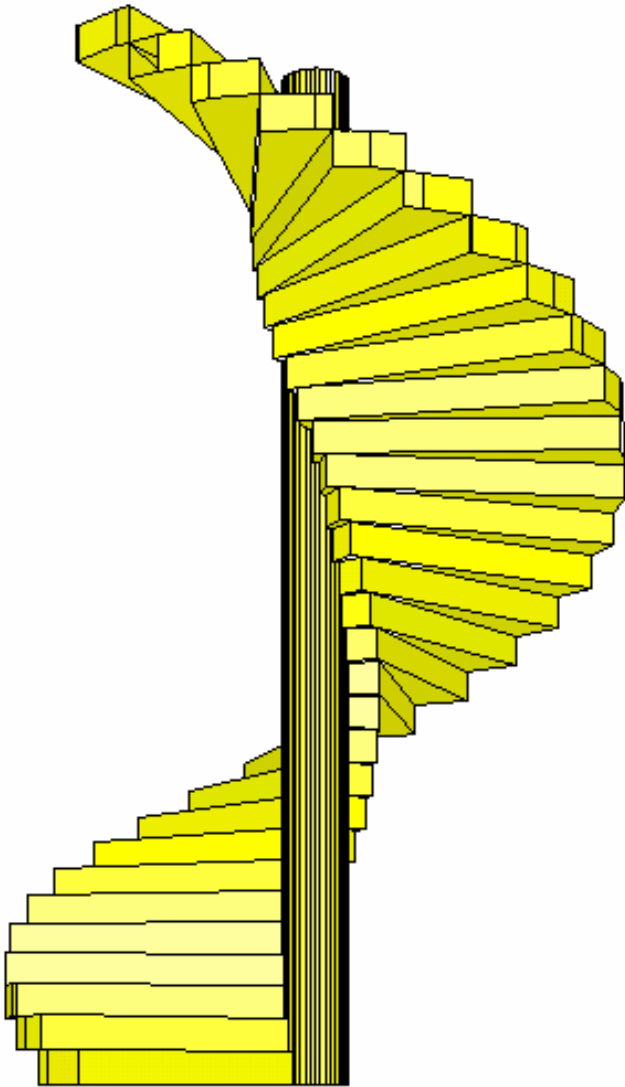


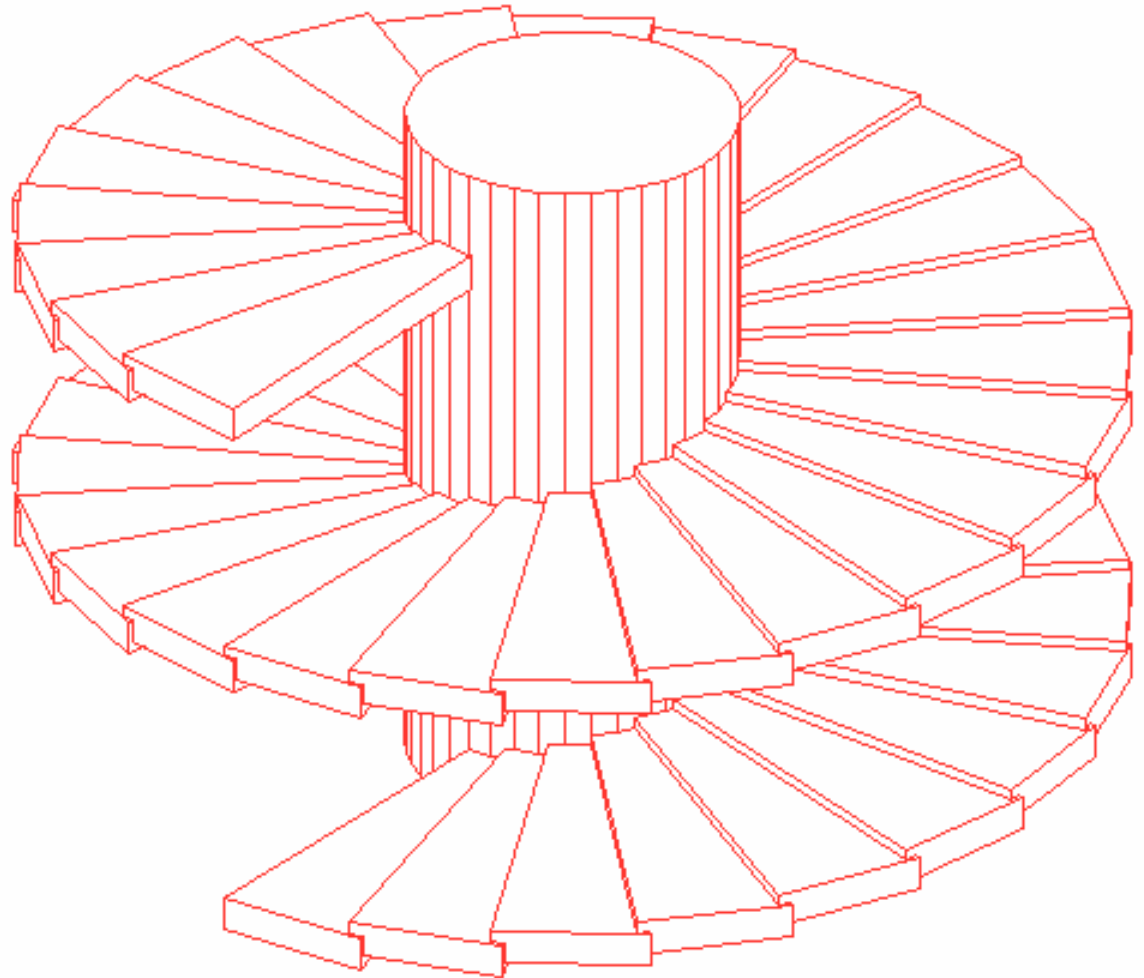


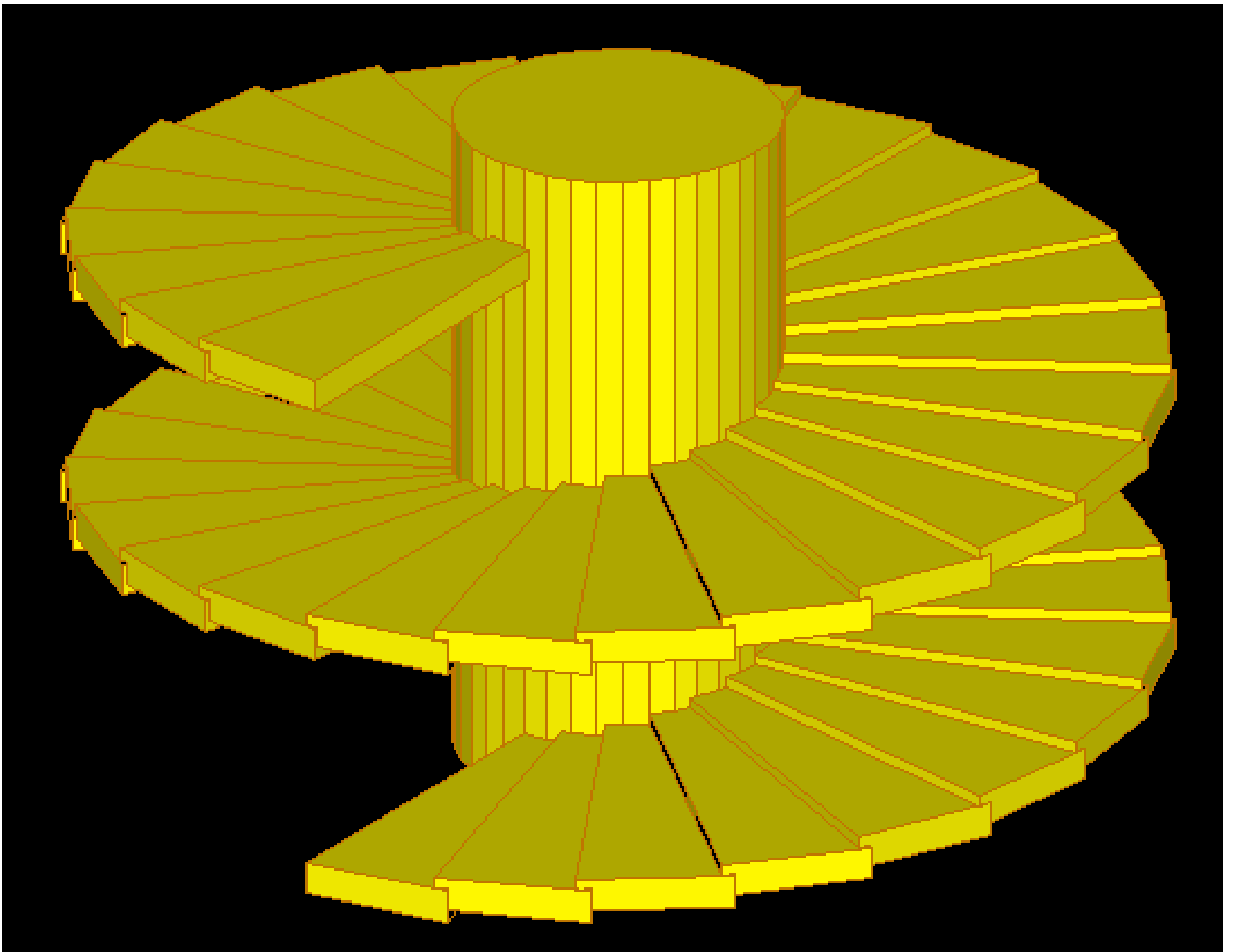


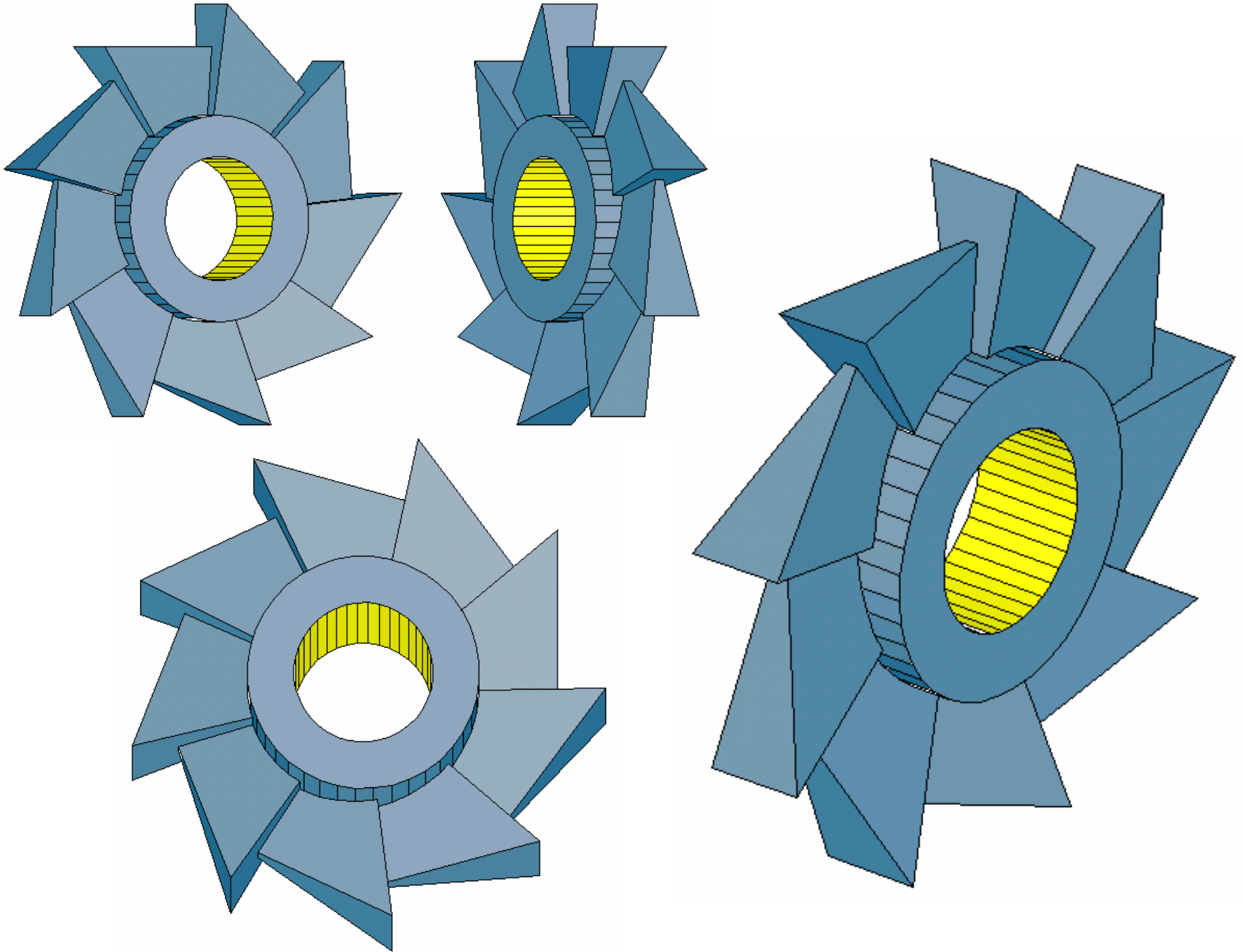


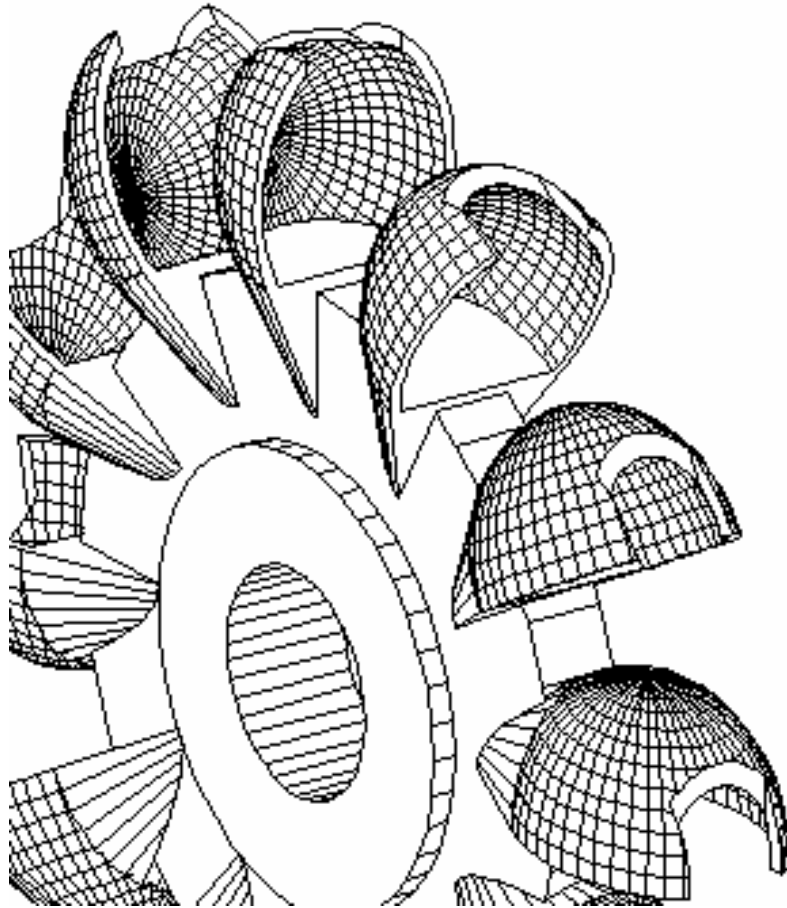


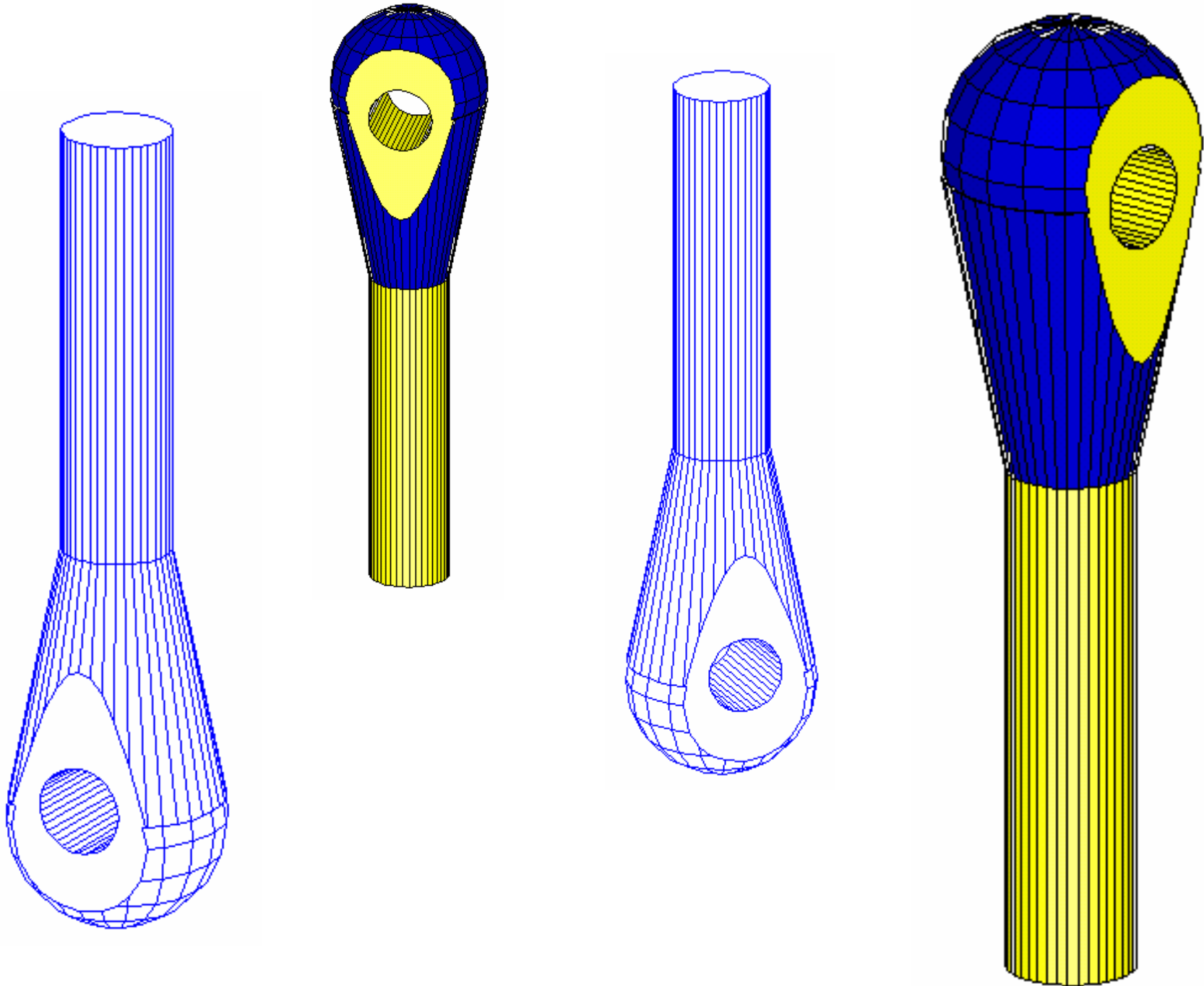


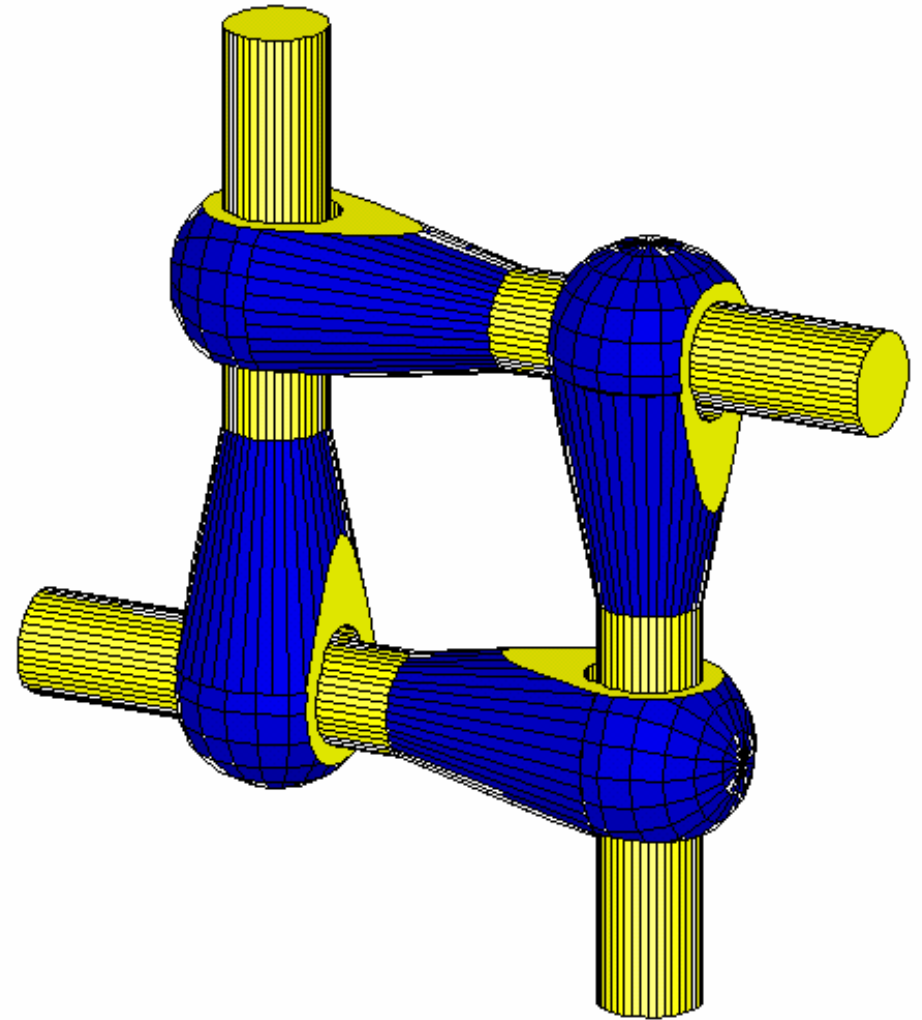
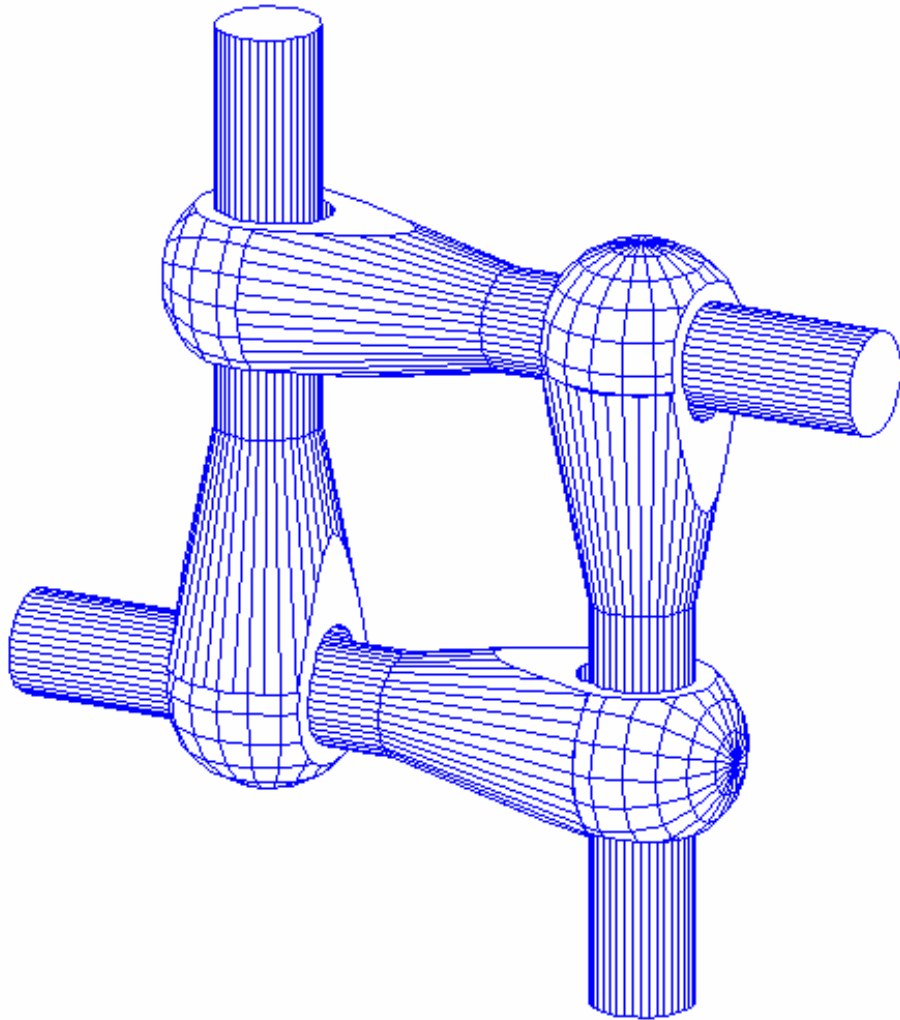


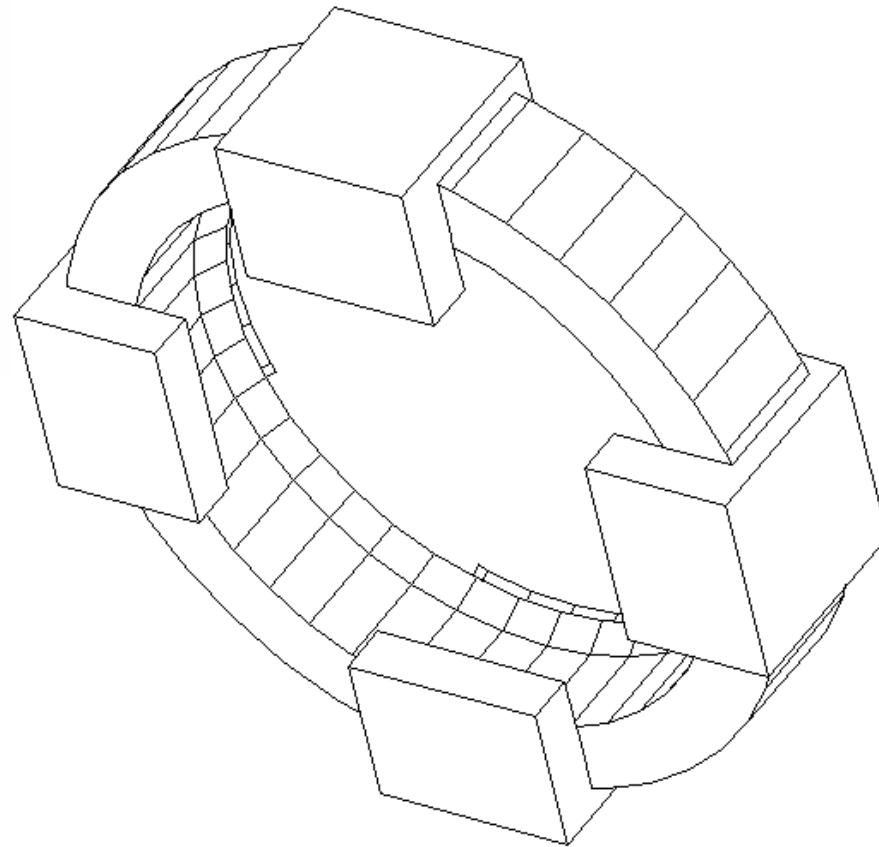
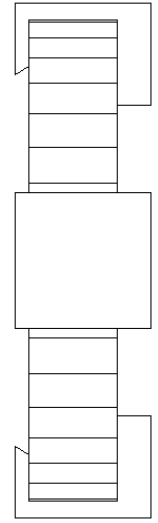
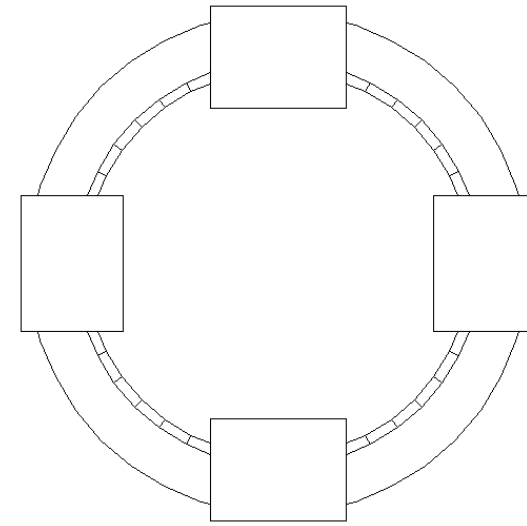
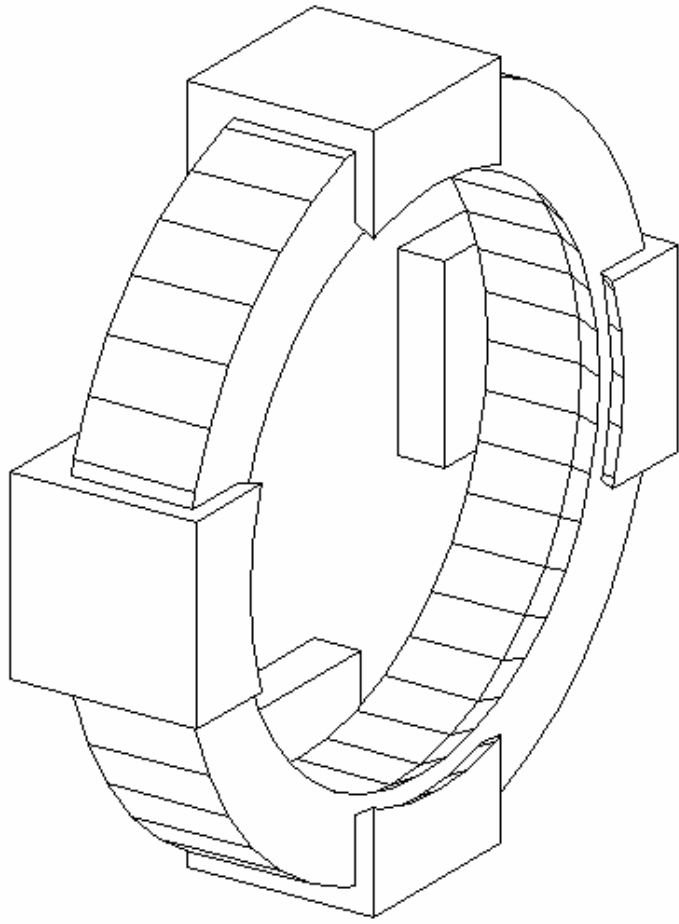


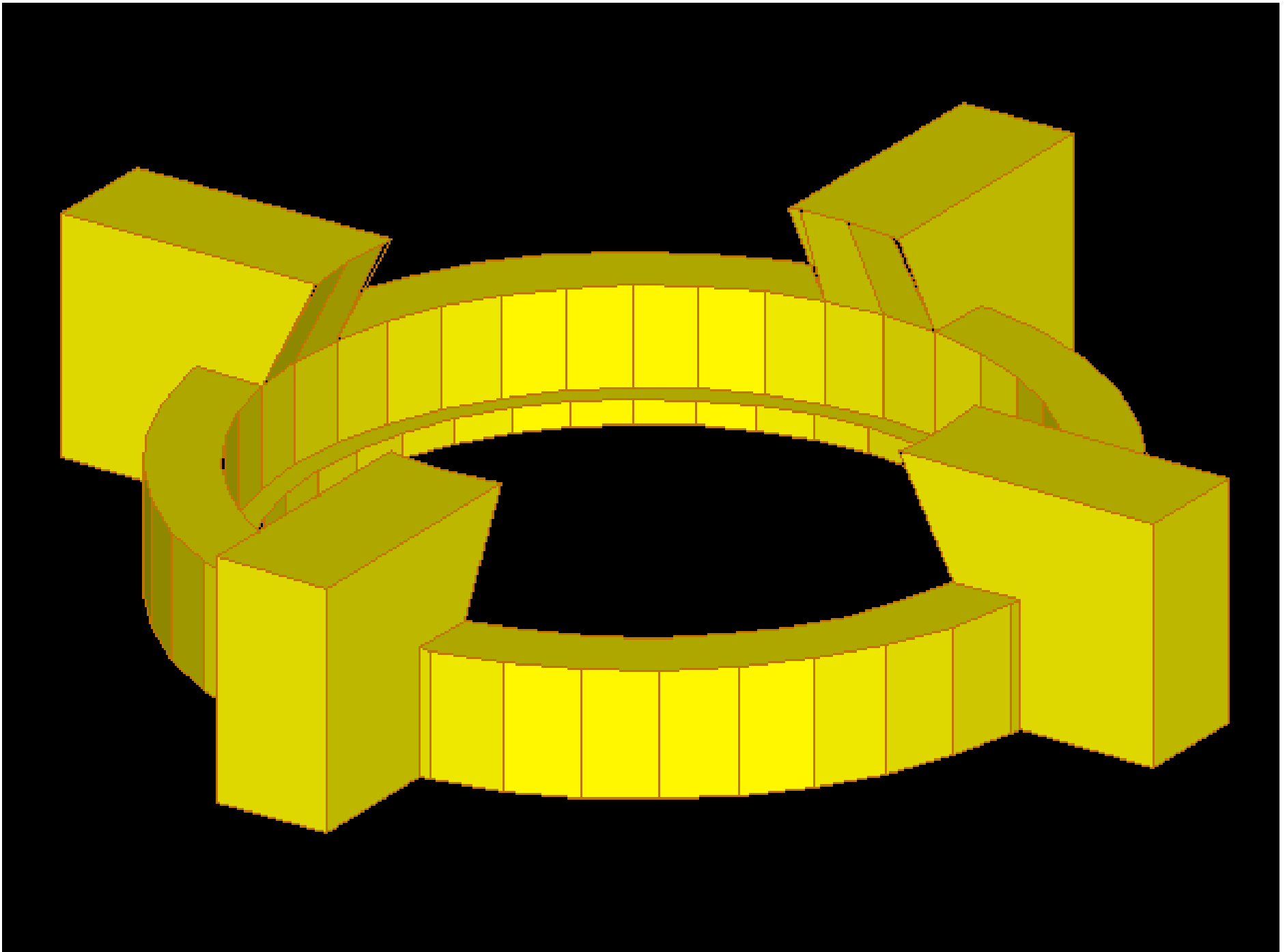


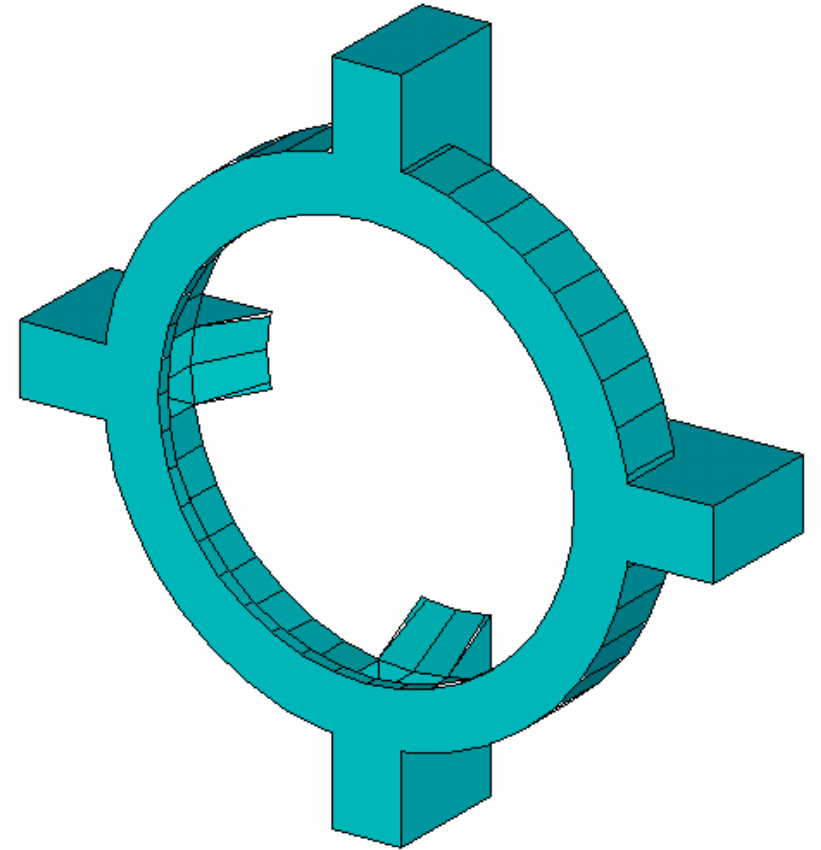
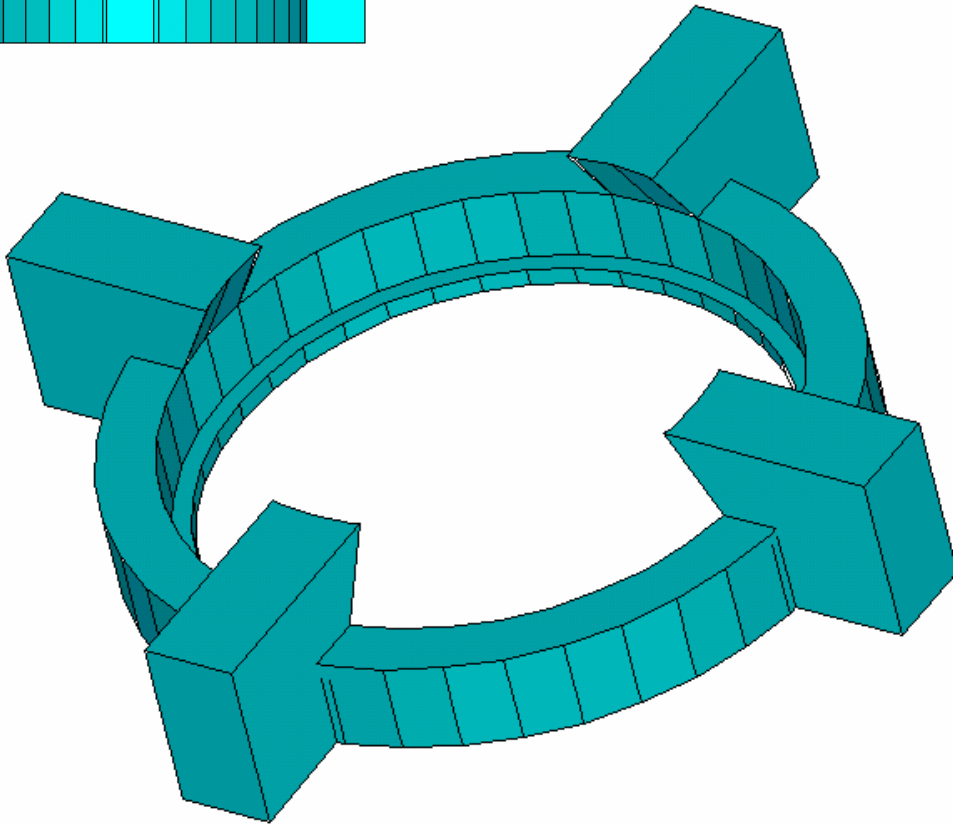
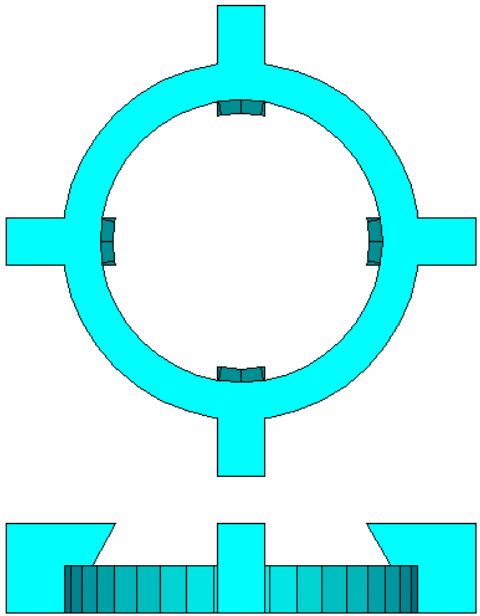


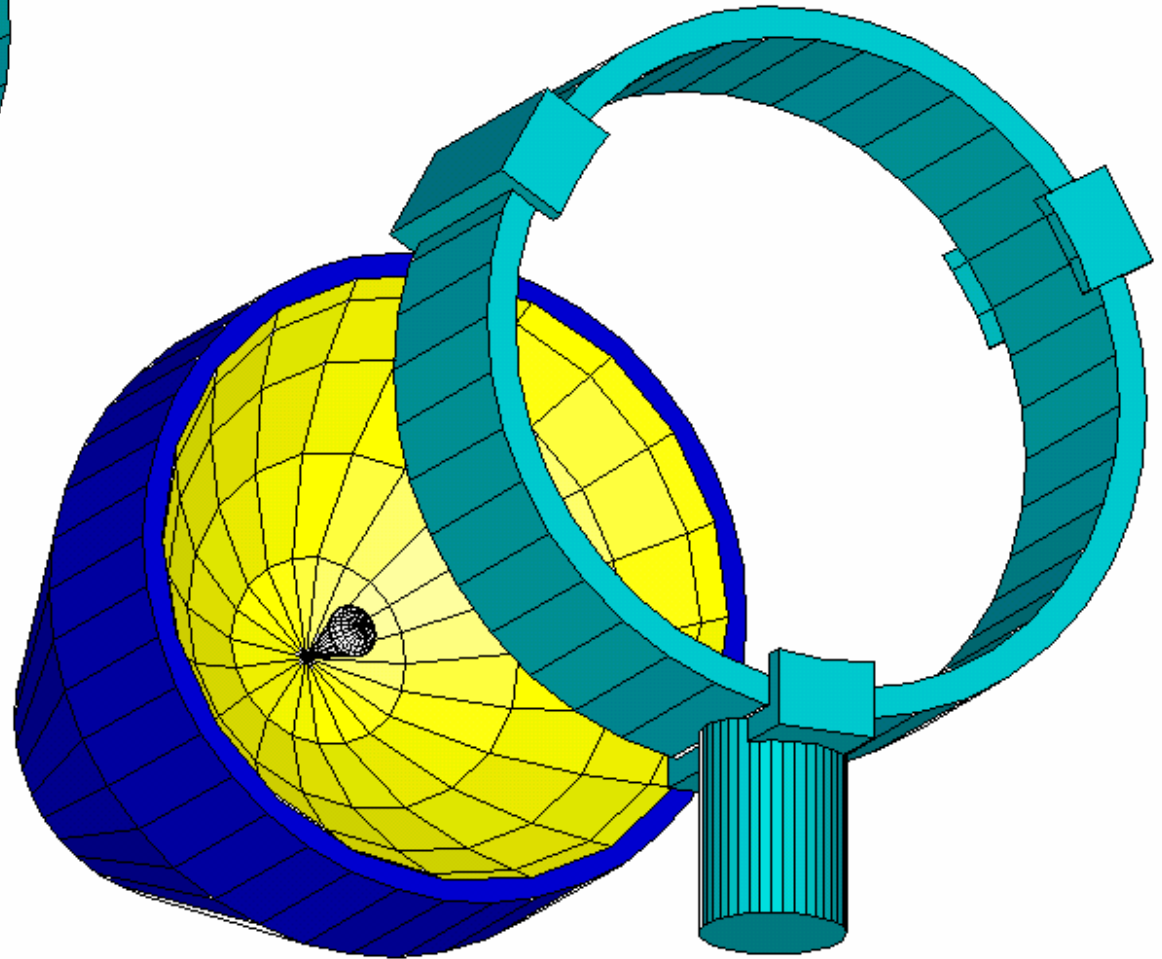
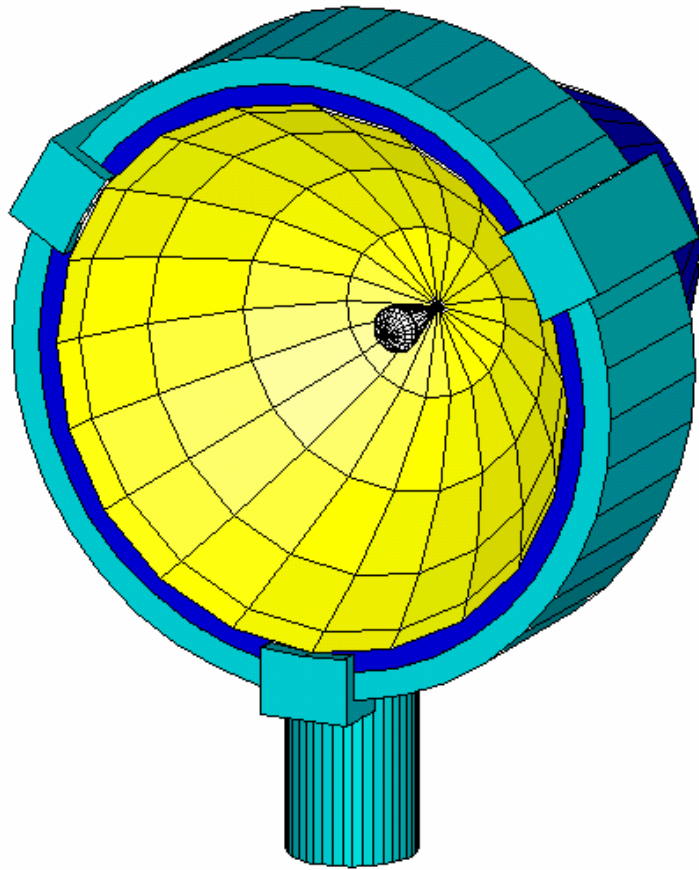












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- ⊙ **Lehrplan 1998**
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# Lehrplan 1998

- ⊙ 1 Jahr, 2 Wochenstunden
- ⊙ Teilung im Ausmaß von einer Wochenstunde (EDV-Teiler)

# Lehrplan 1998

## Bildungs- und Lehraufgabe

- ⊙ Risslesen, Freihandskizzen
- ⊙ Geeignete Abbildungsmethoden
- ⊙ Analyse geometrischer Sachverhalte
- ⊙ Konstruieren mit 3D-Software

# Lehrplan 1998

## Lehrstoff

- ⊙ Räumliches Koordinatensystem
- ⊙ Abbildungsmethoden
- ⊙ Erfassen räumlicher Strukturen
- ⊙ Konstruieren in Normalrissen
- ⊙ Normale Axonometrie
- ⊙ 3D-Konstruktionen mit CAD

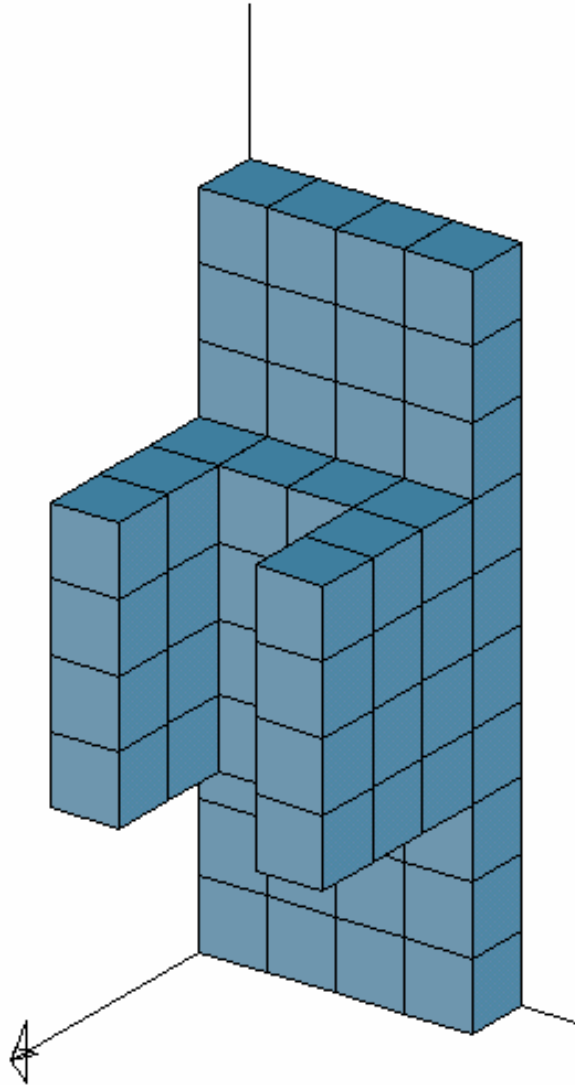
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# Formstück



3D-Objekte

Quader 1 :  $x=1; y=4; z=10$

3D-Objekte

Quader 2 :  $x=1; y=4; z=4$

Transformieren

Verschieben

(Quader 2)  $x=1; y=0; z=3$

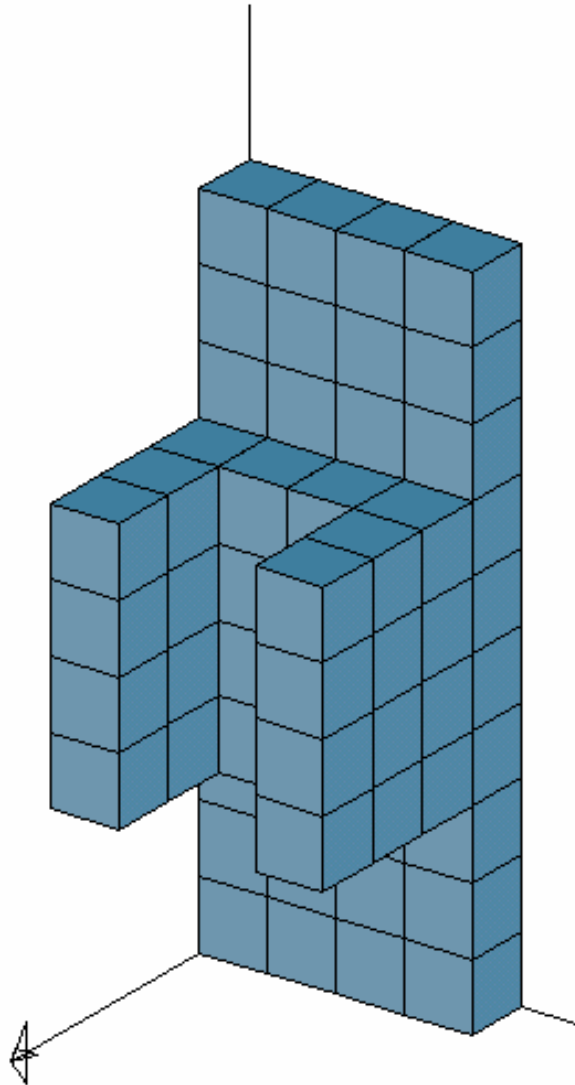
Modellieren

Vereinigung

Quader 1  $\cup$  Quader 2  $\Rightarrow$  Objekt 1

3-D Objekte

Quader 3 :  $x=2; y=1; z=3$



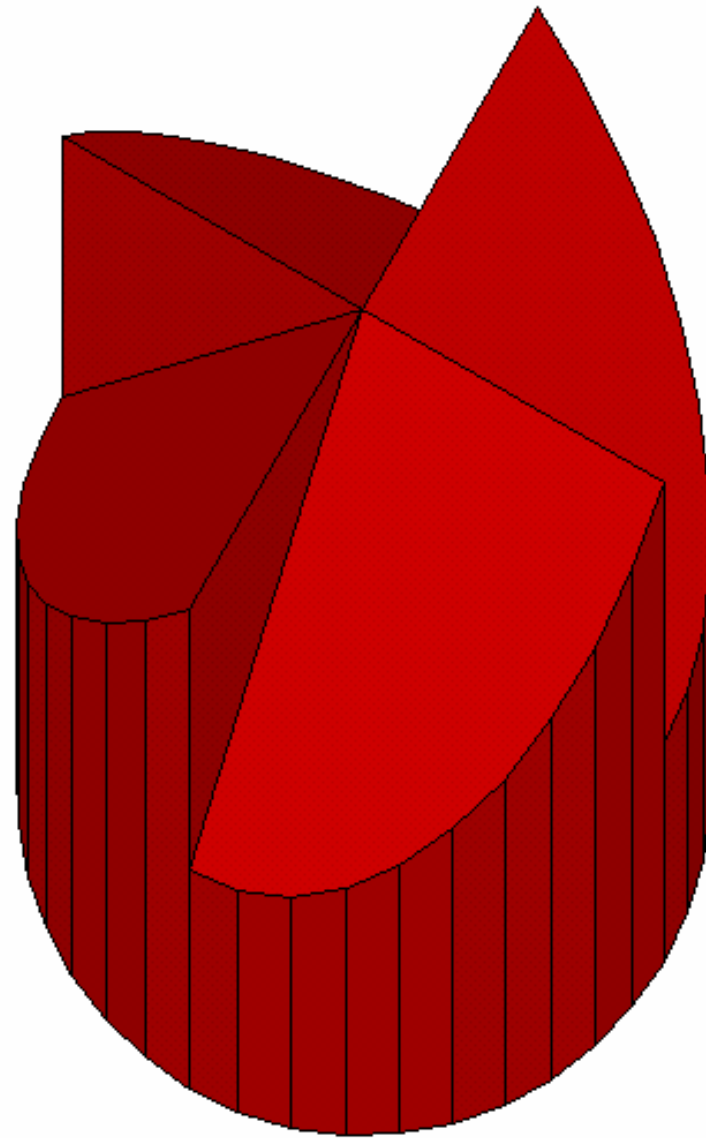
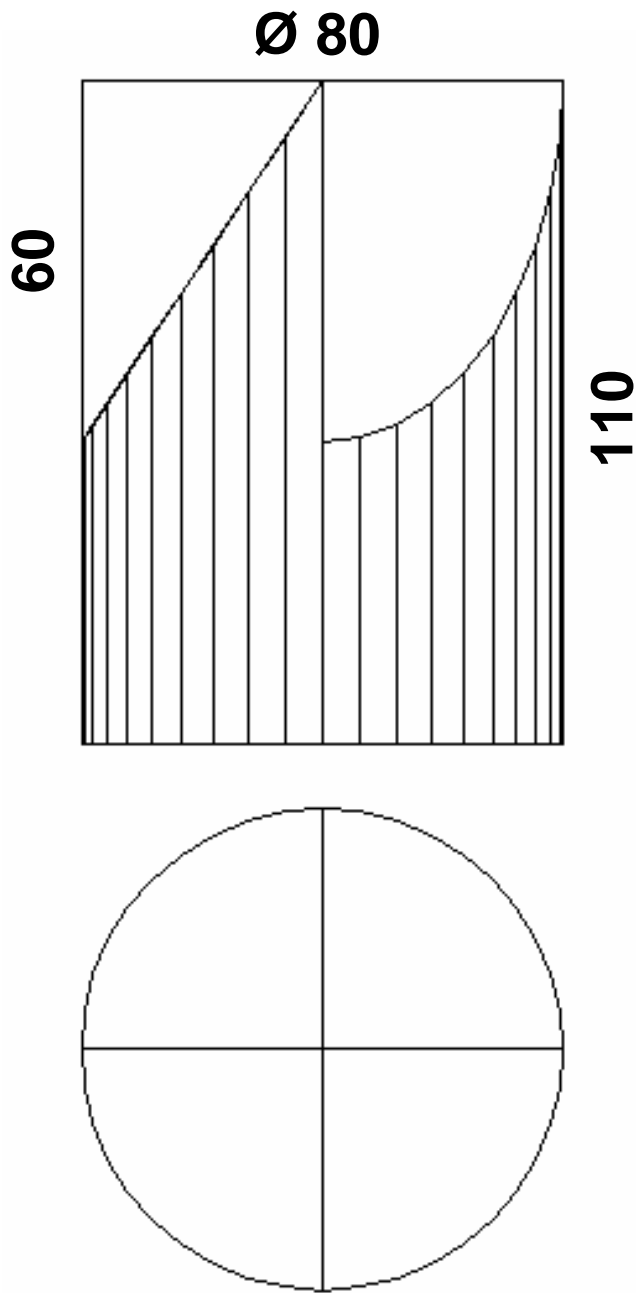
Transformieren  
 Verschieben  
 (Quader 3)  $x=2; y=0; z=3$

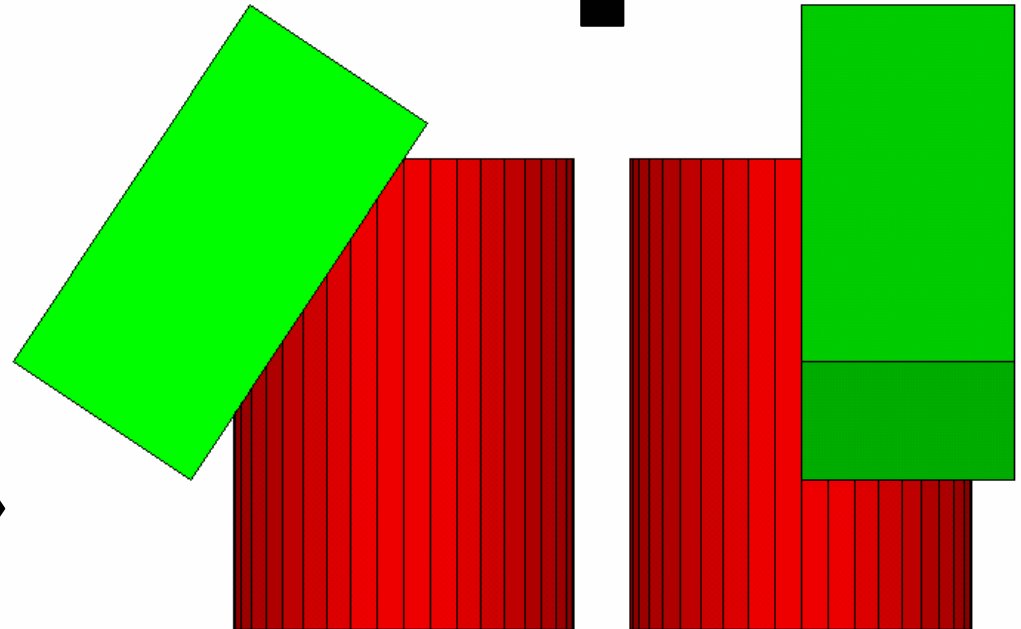
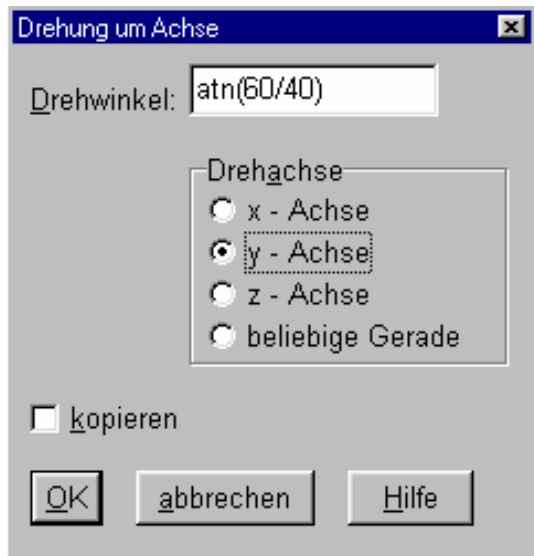
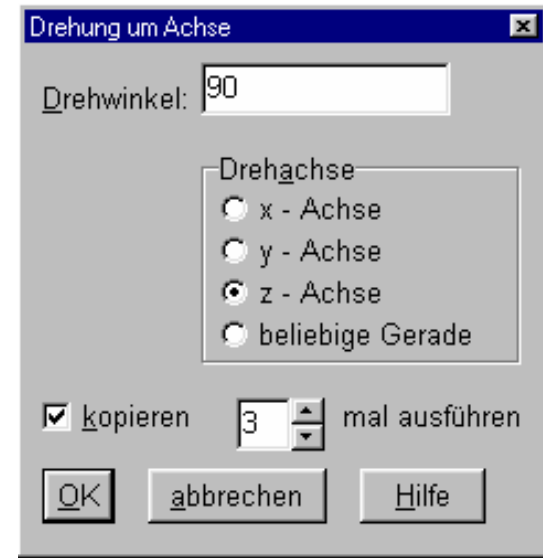
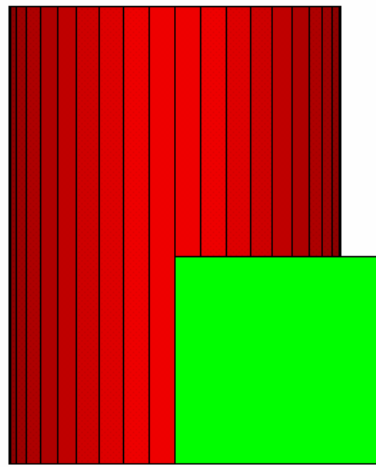
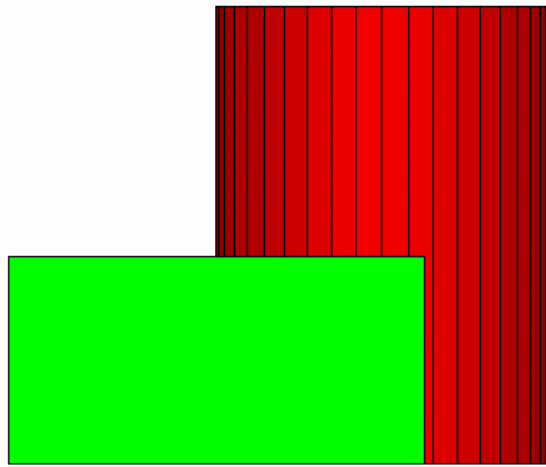
Transformieren  
 Verschieben (mit Kopieren)  
 (Quader 3)  $x=0; y=3; z=0 \Rightarrow$  Quader 4

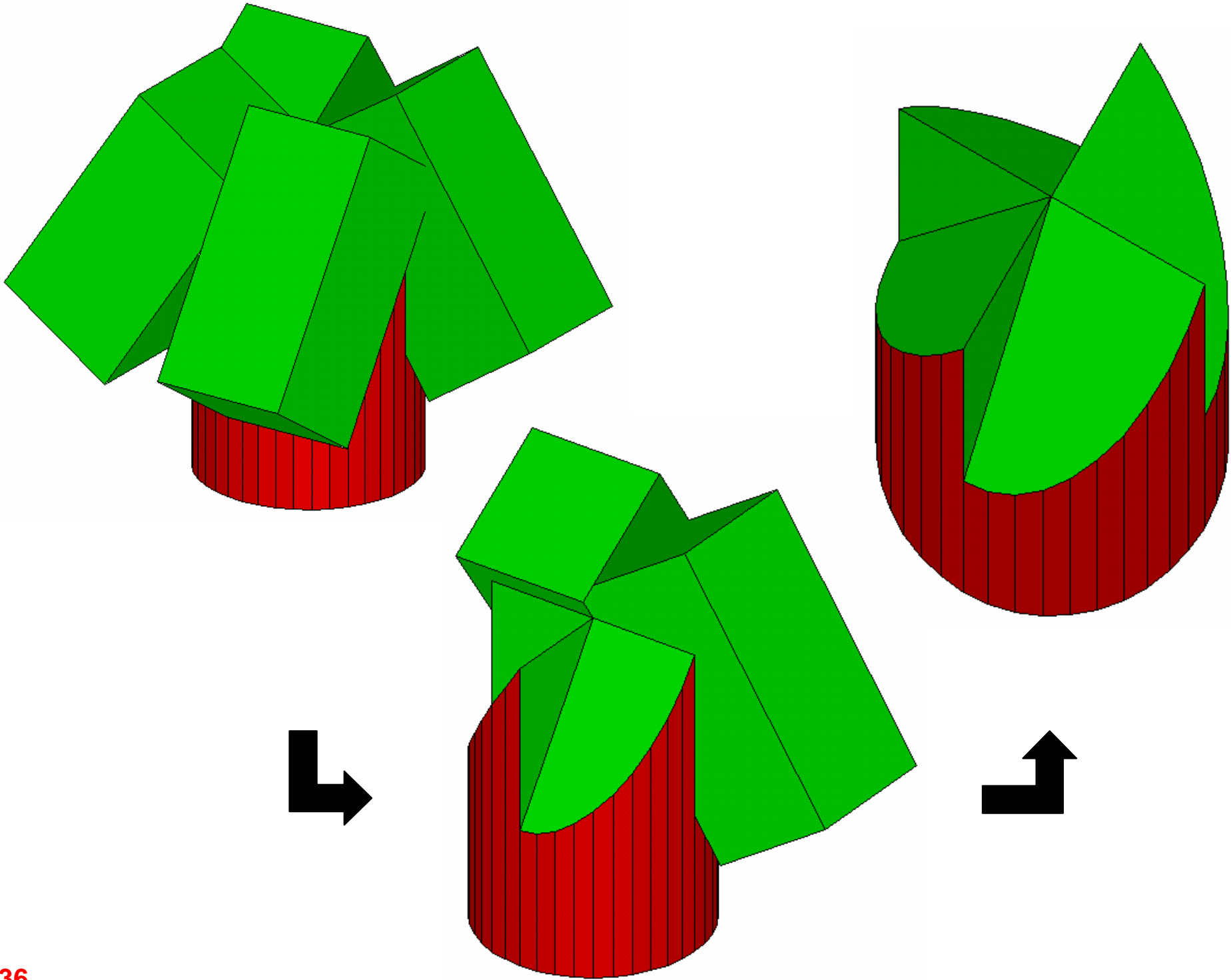
Modellieren  
 Vereinigung  
 Quader 3  $\cup$  Objekt 1  $\Rightarrow$  Objekt 2

Modellieren  
 Vereinigung  
 Quader 4  $\cup$  Objekt 2  $\Rightarrow$  Objekt 3

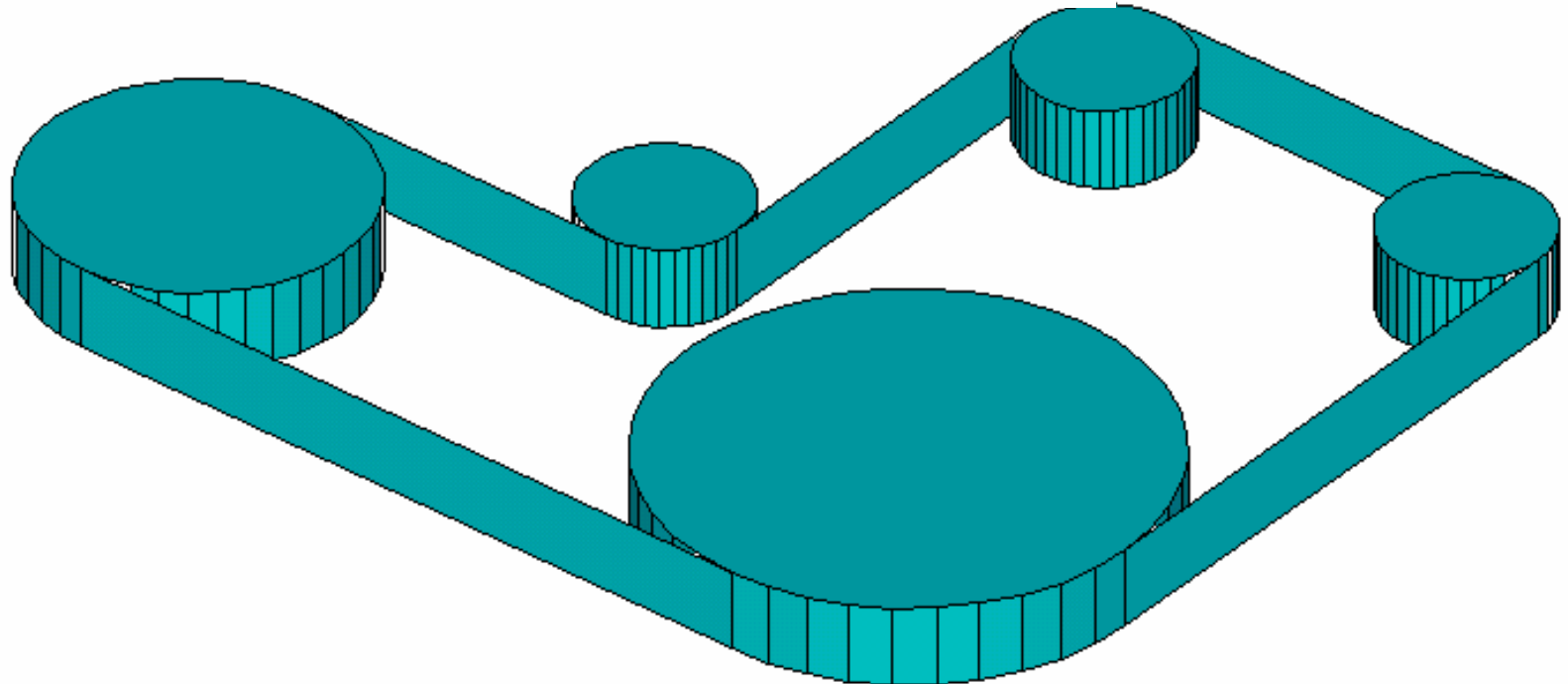
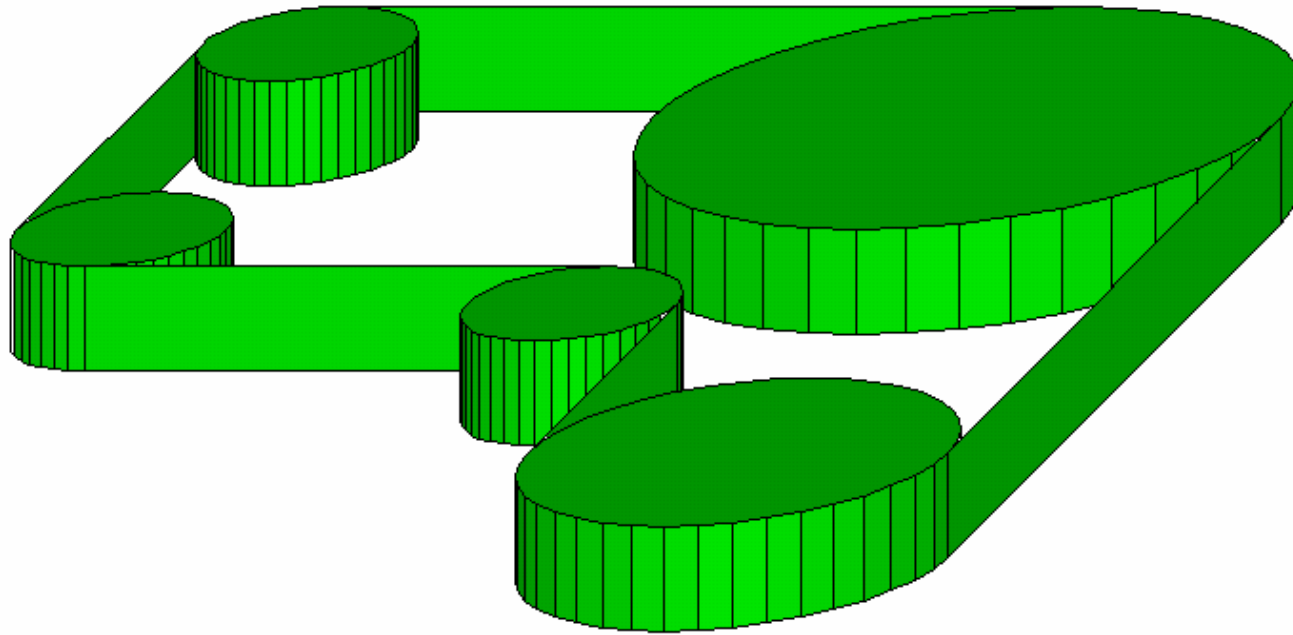
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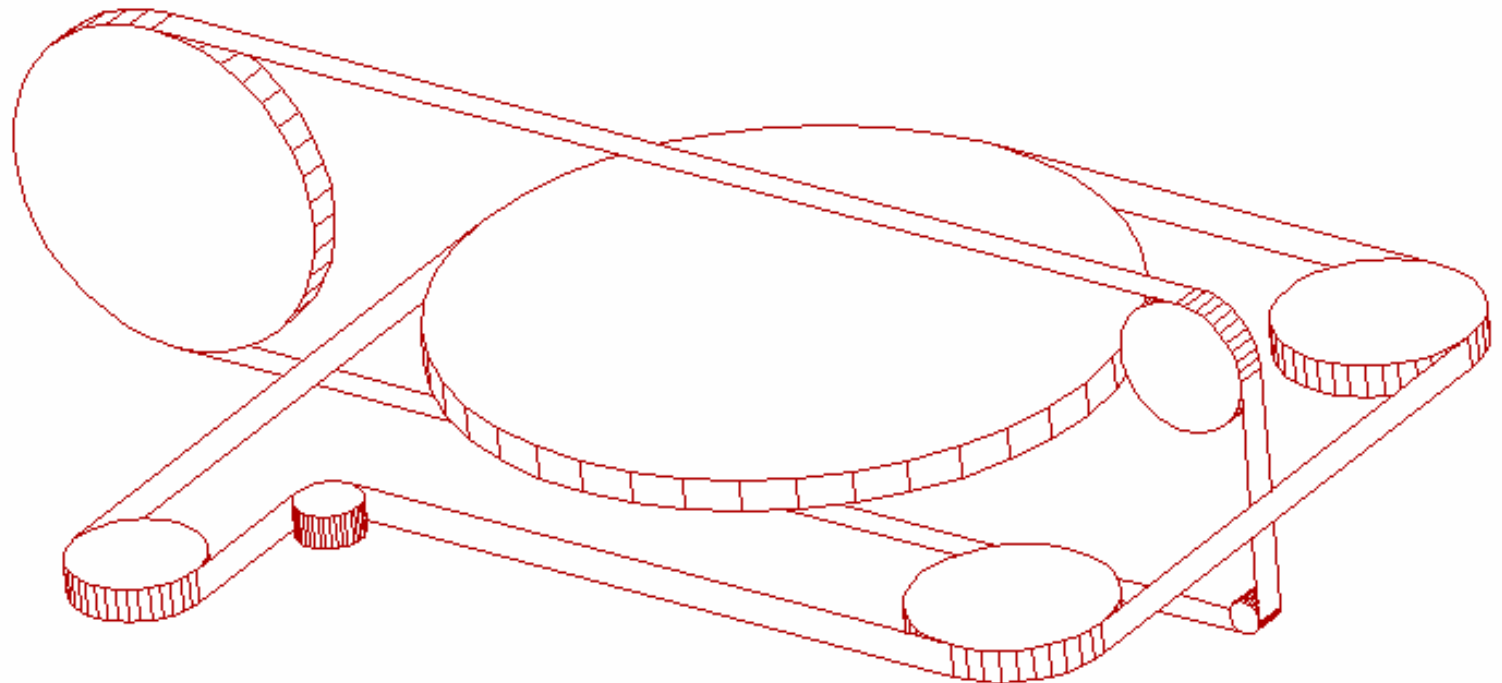
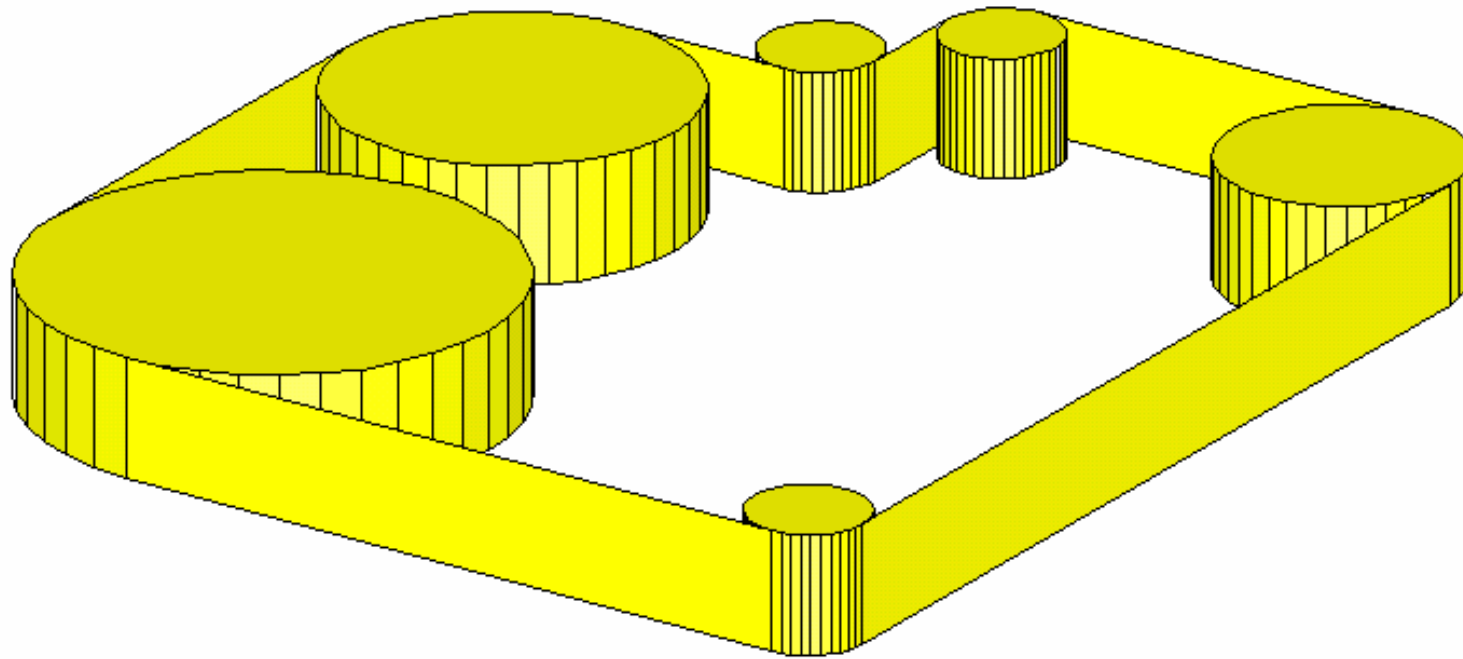




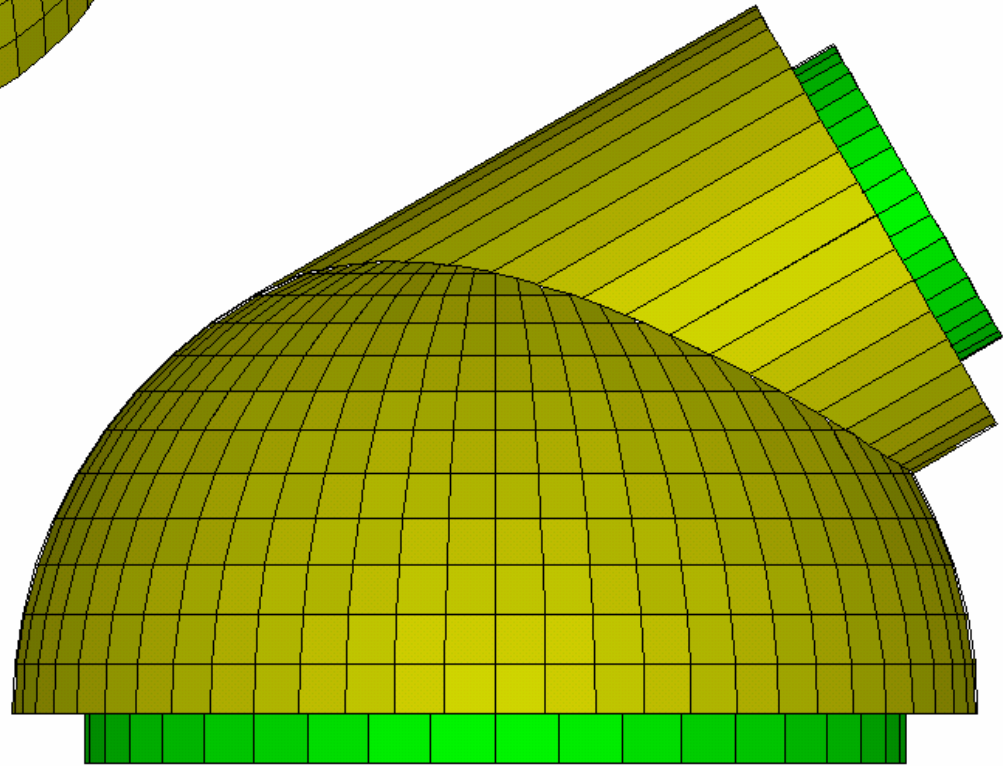
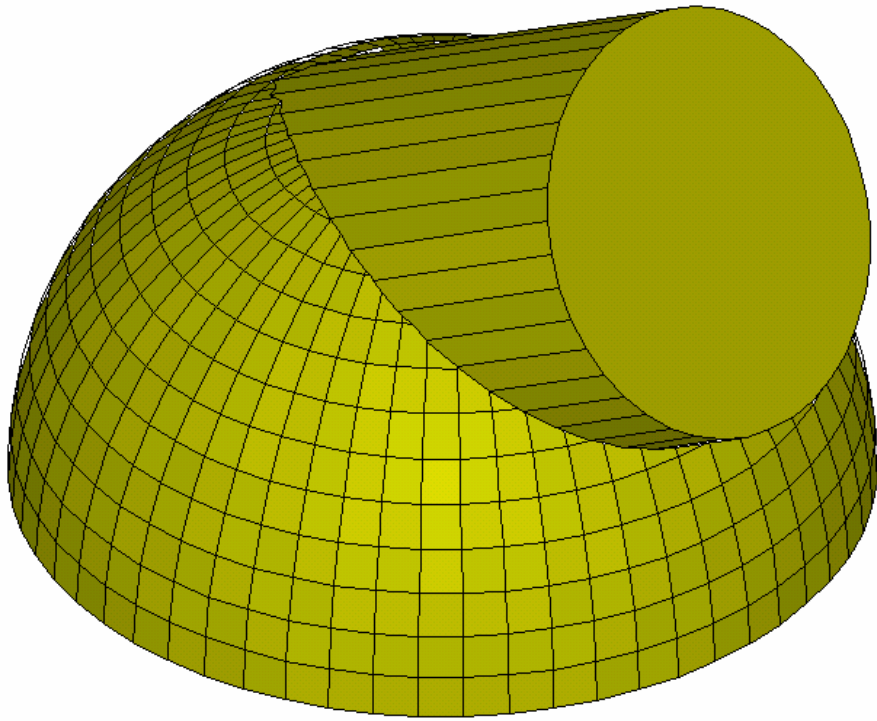


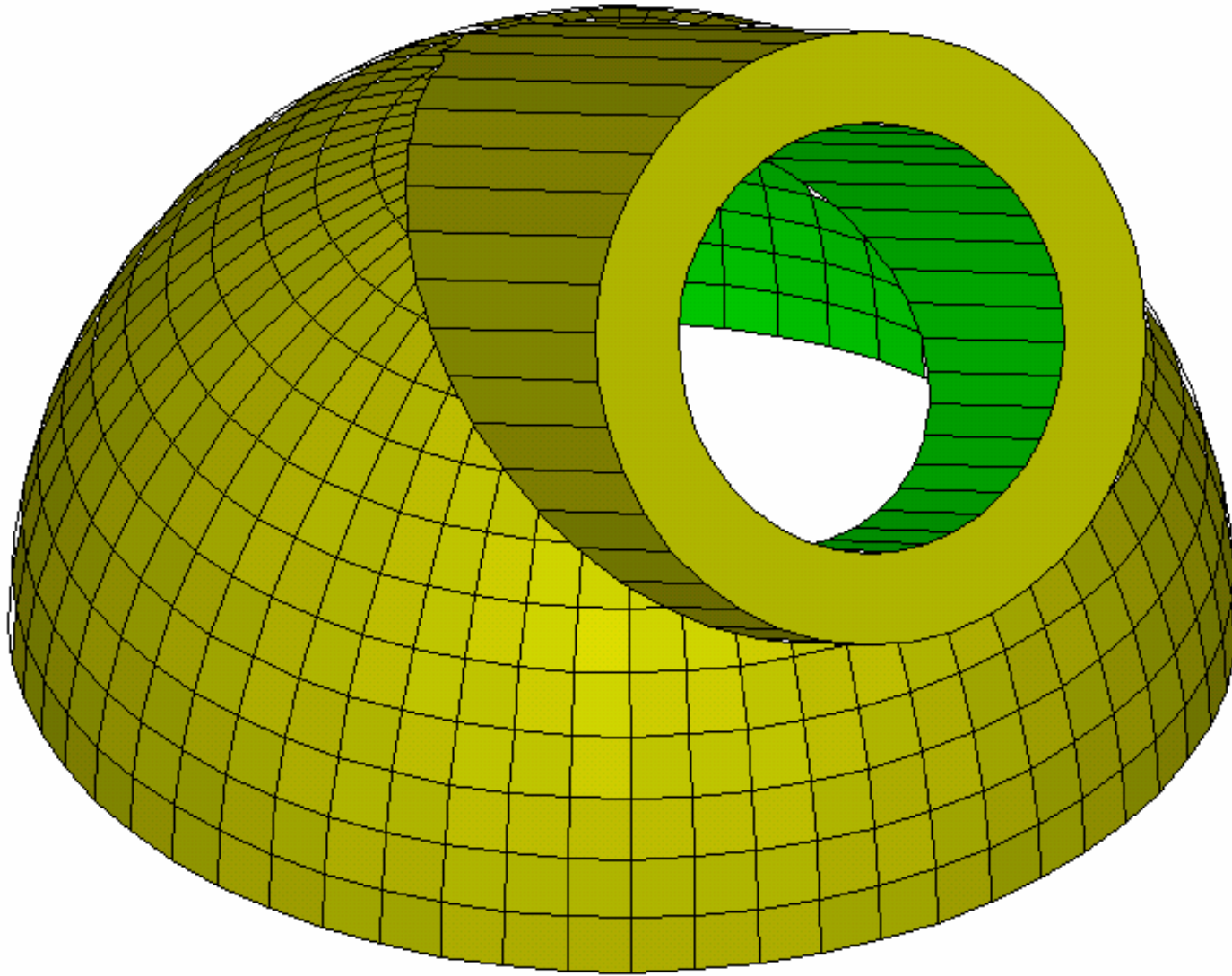
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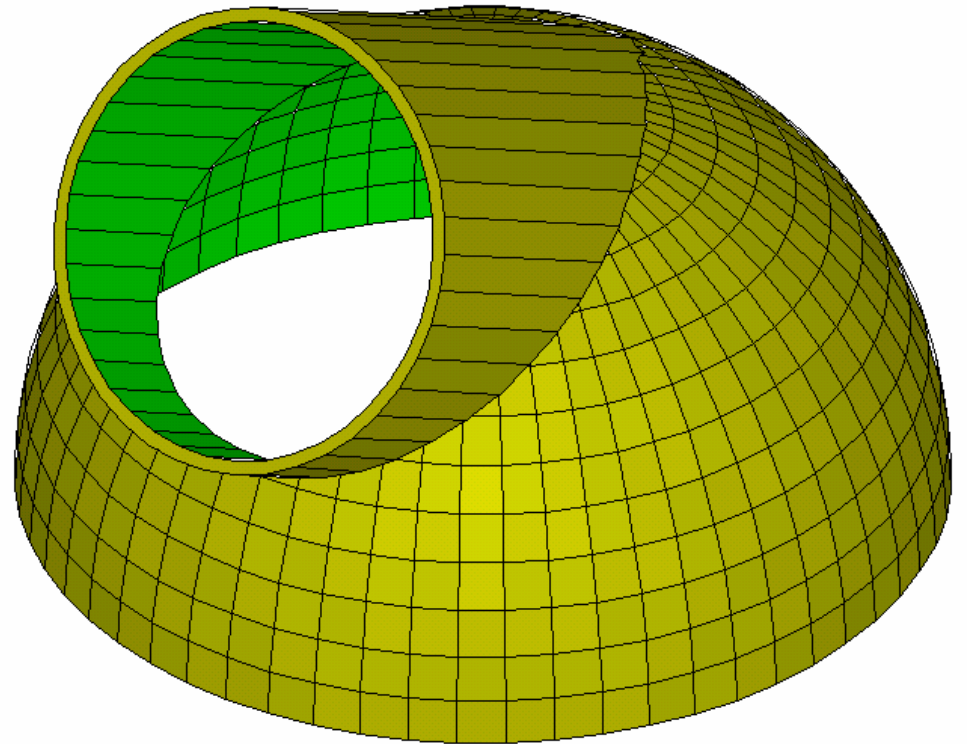
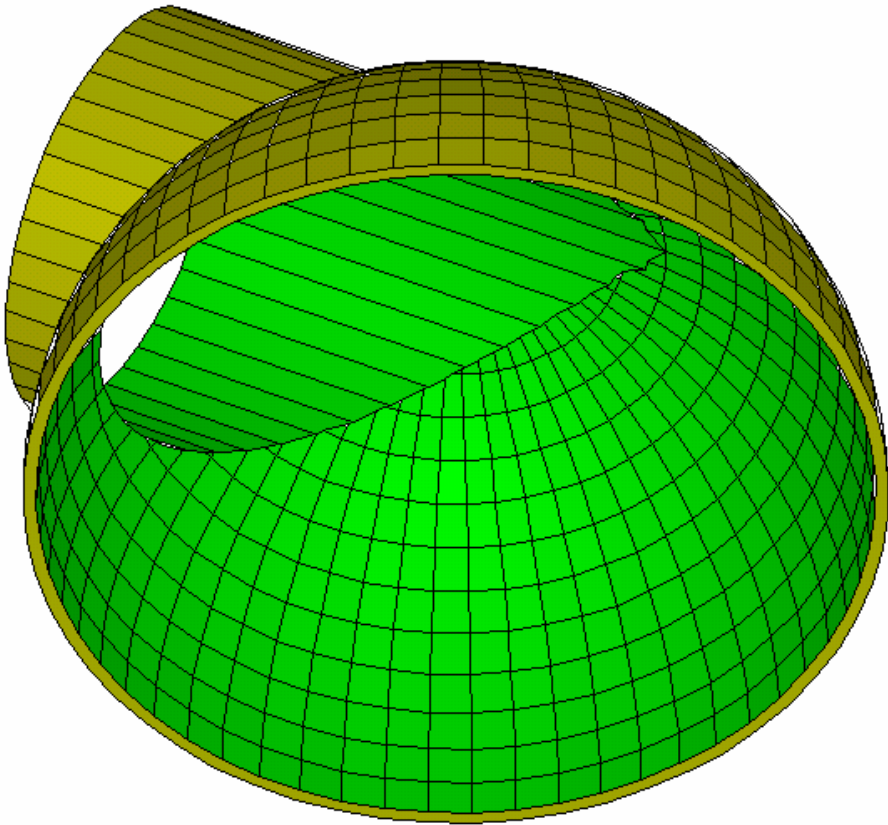


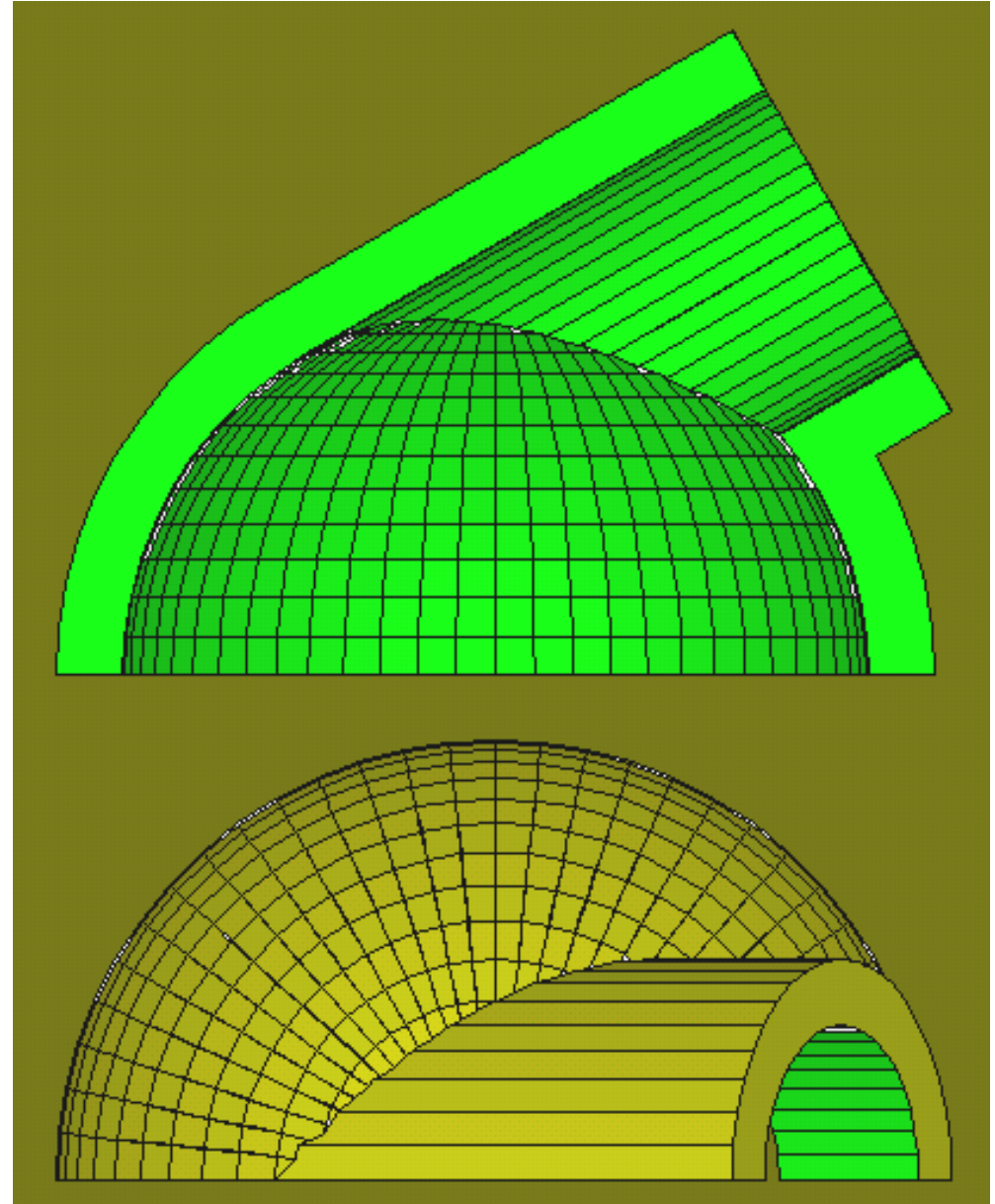
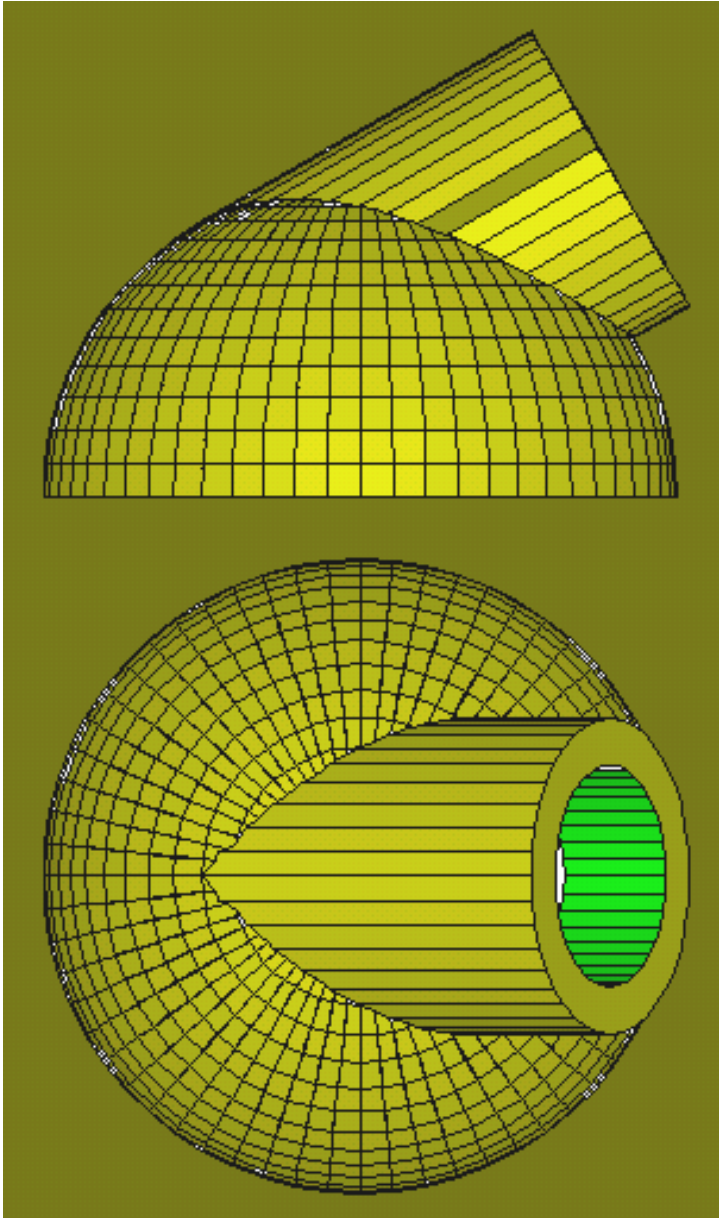


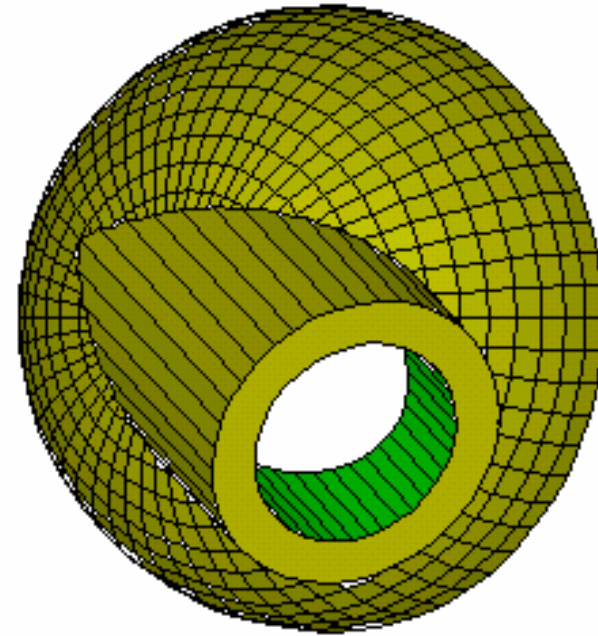
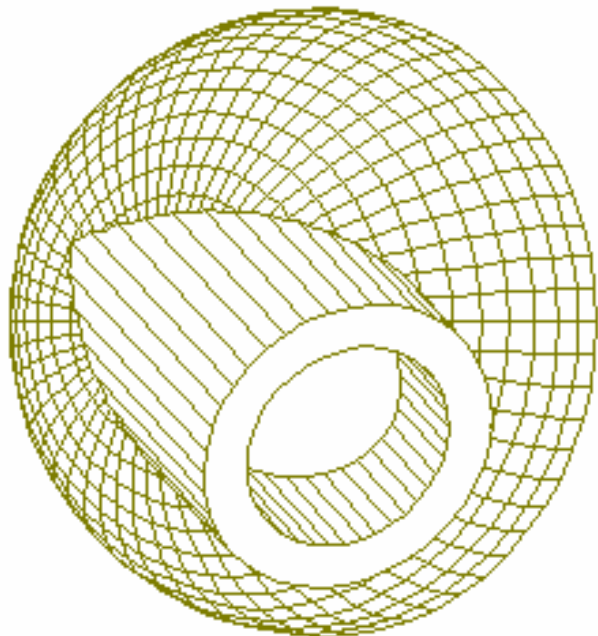
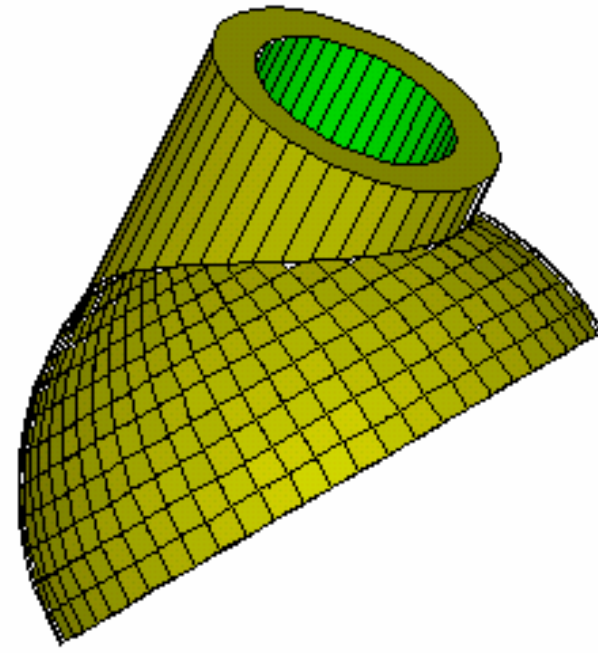
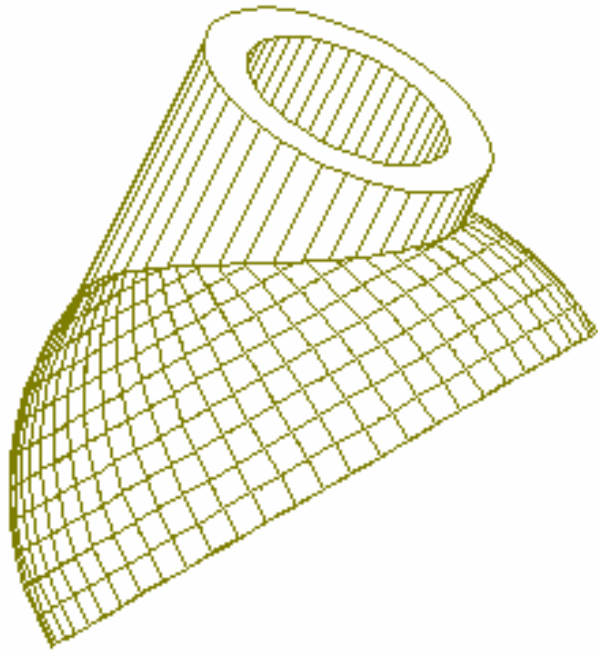
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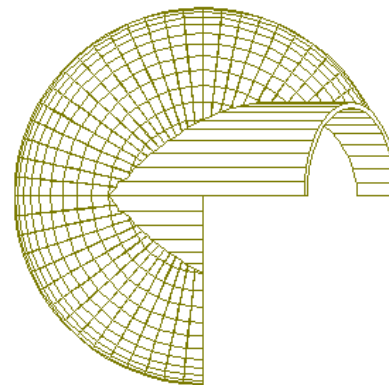
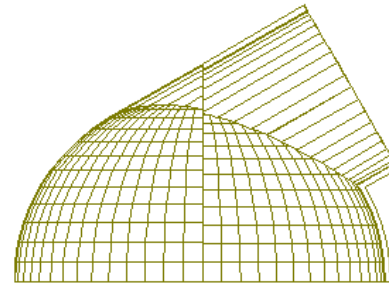
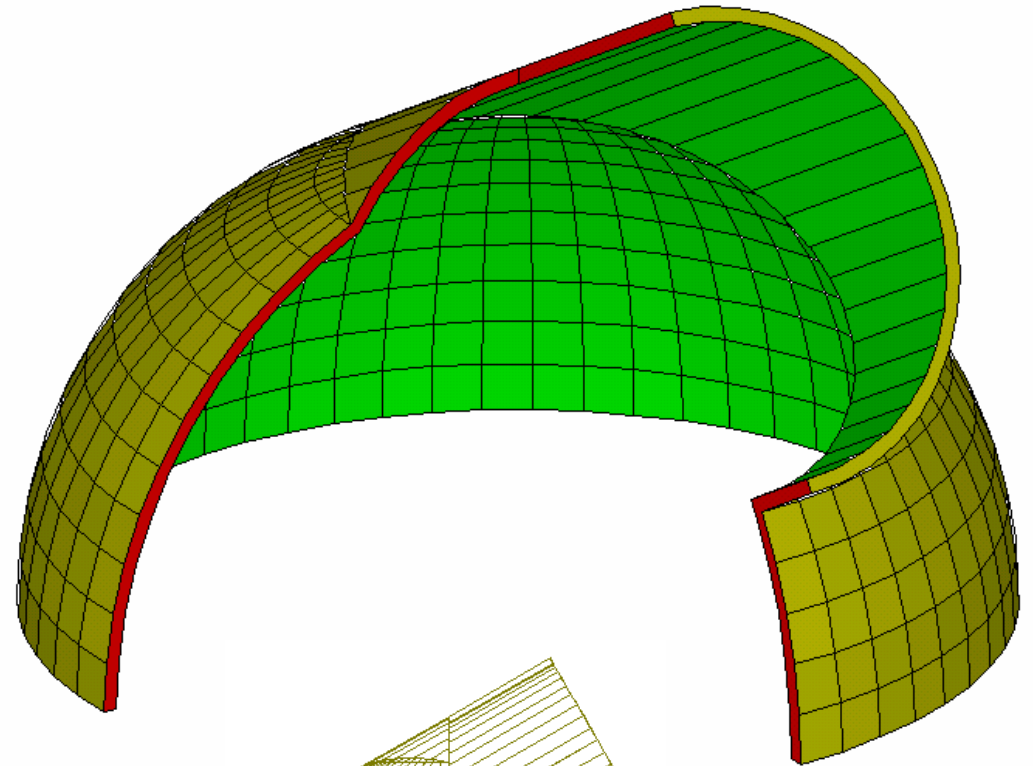
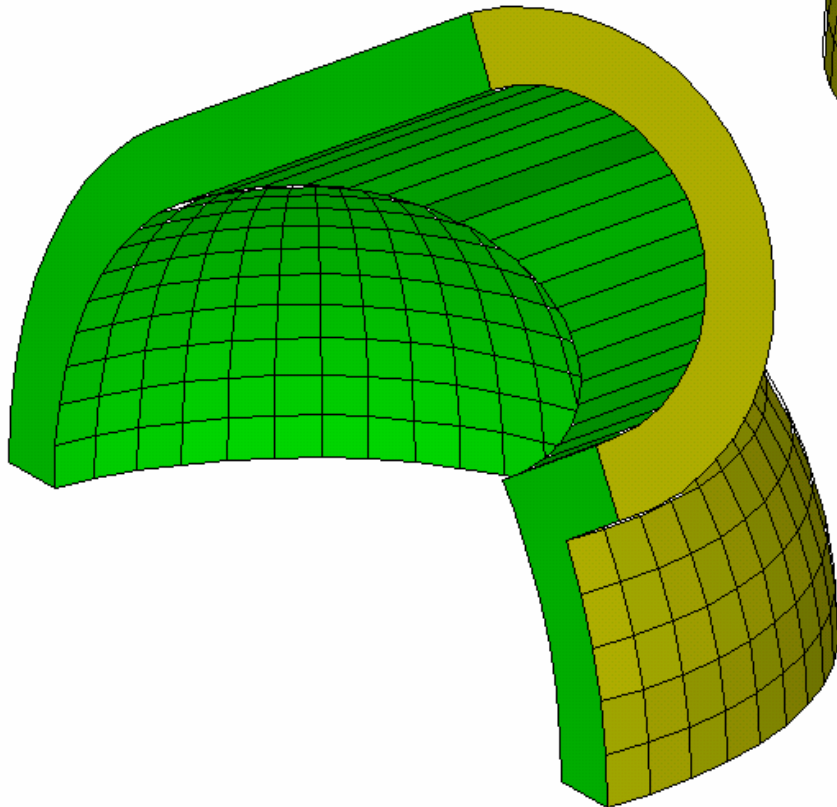
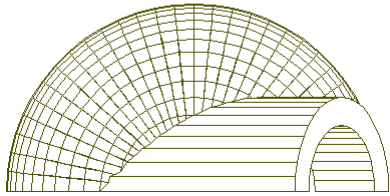
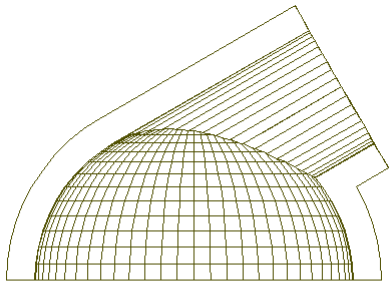




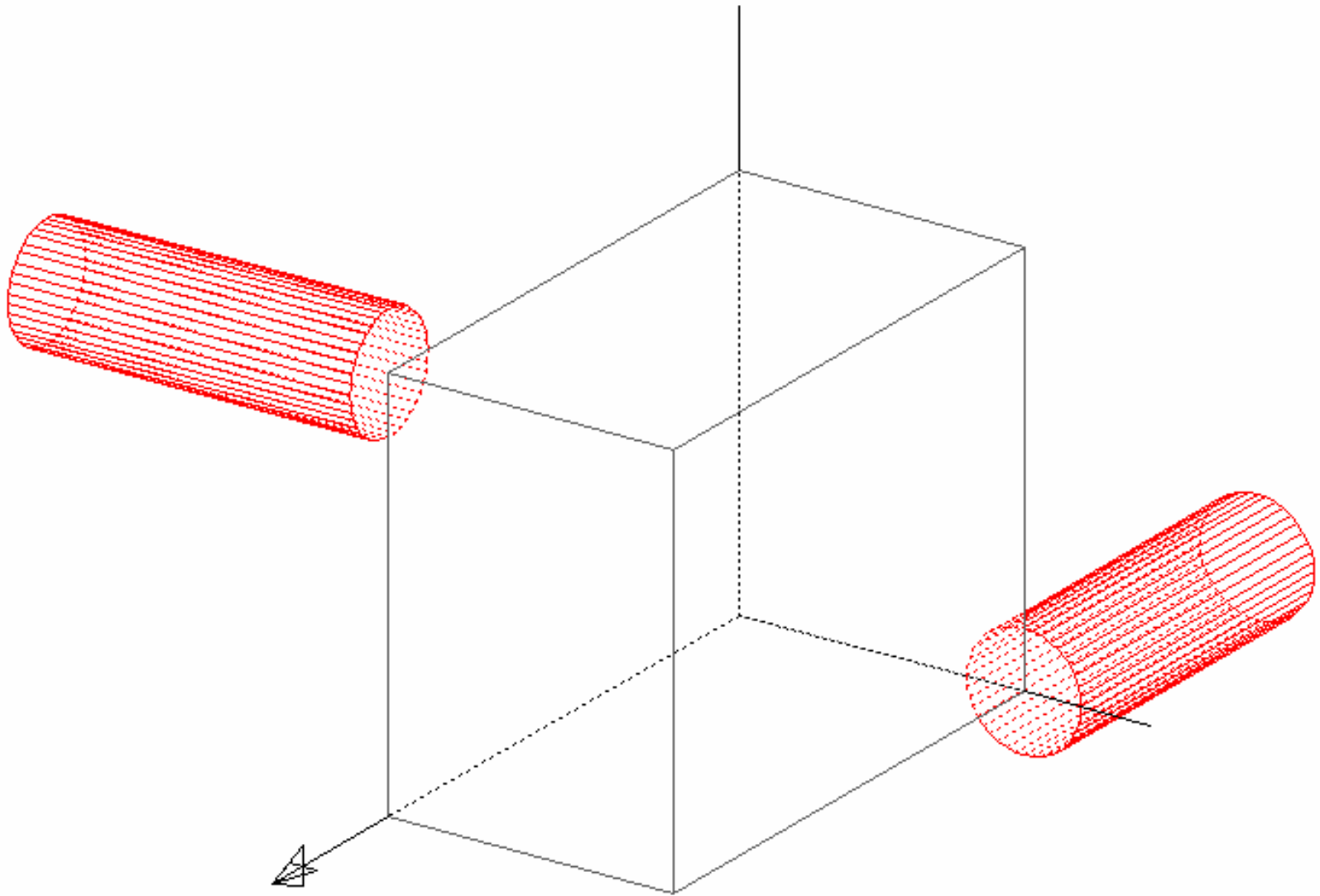


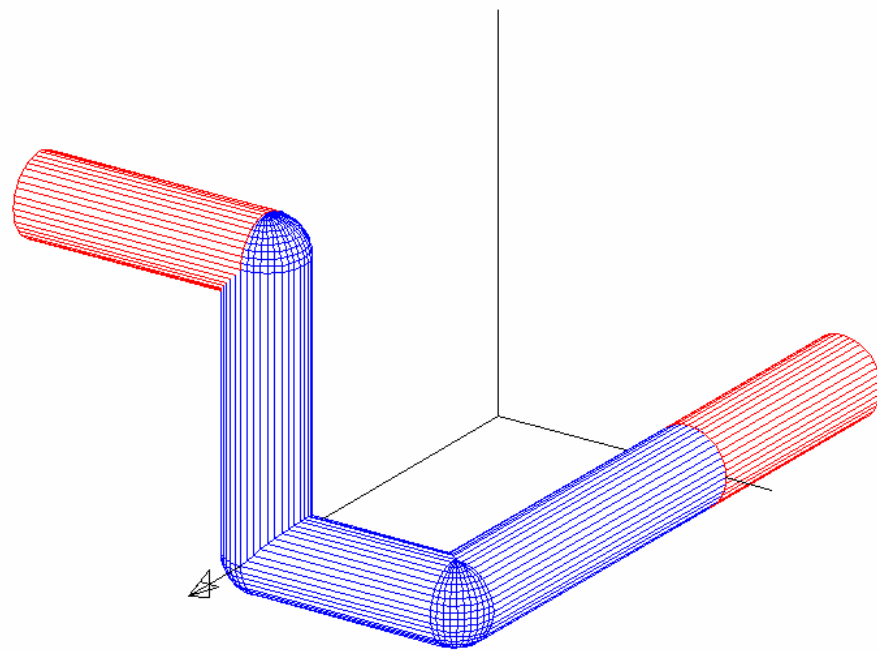
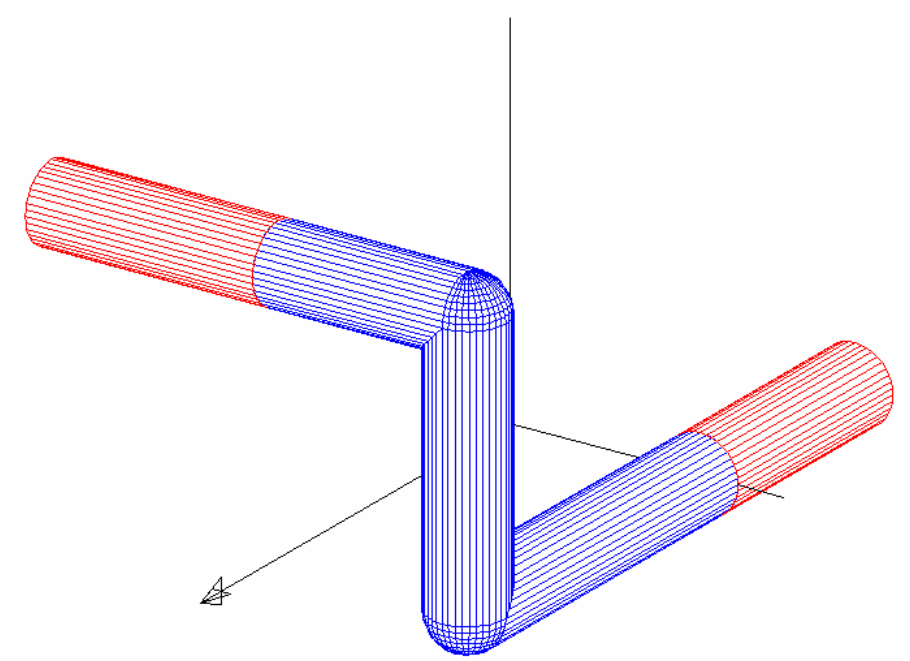
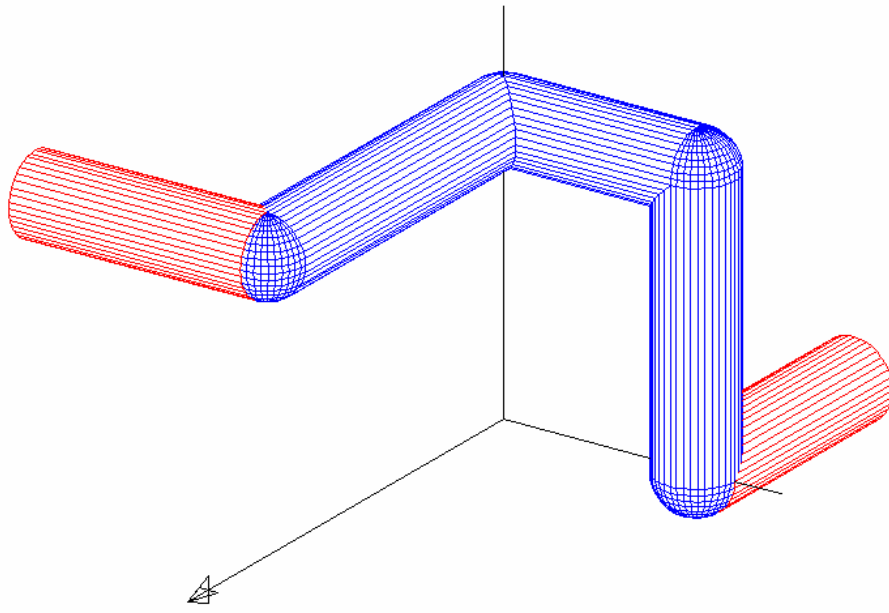




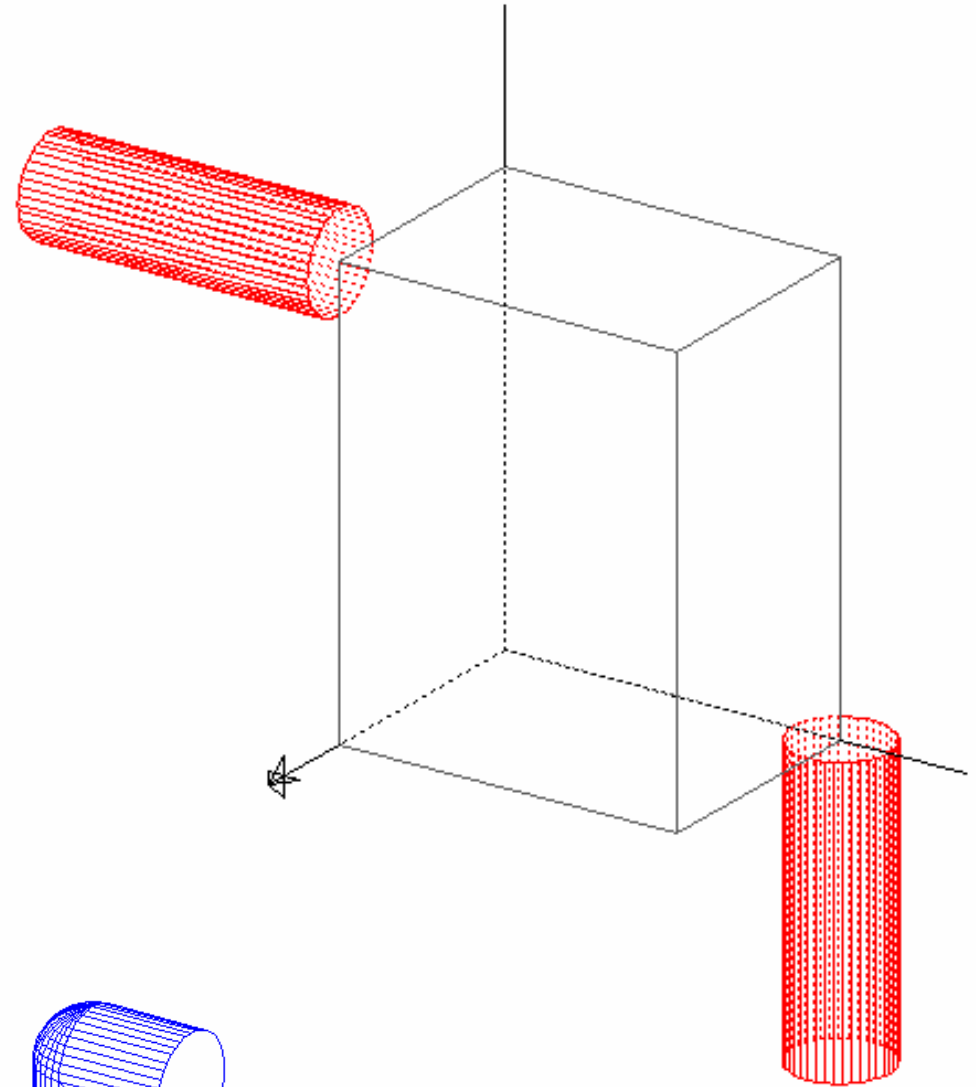
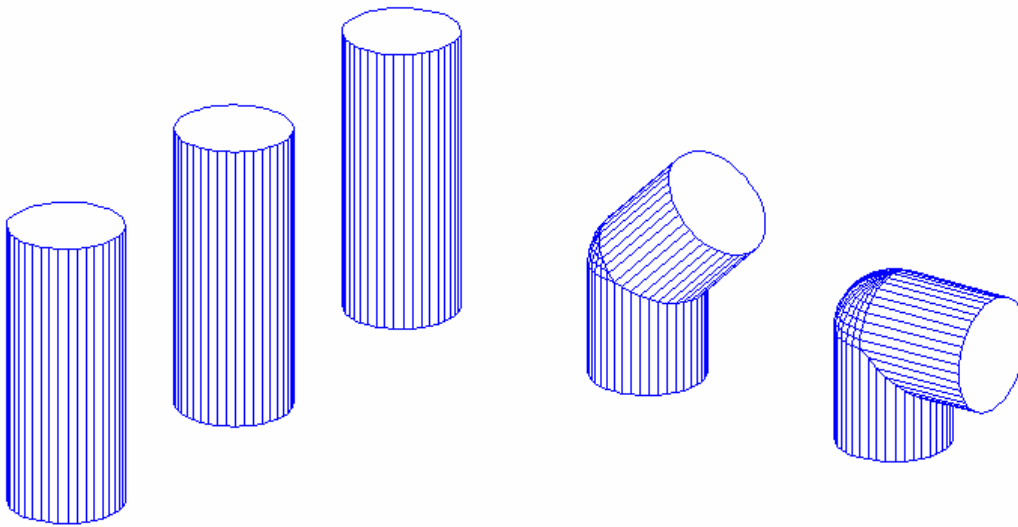


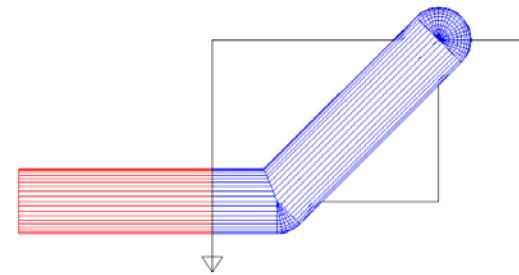
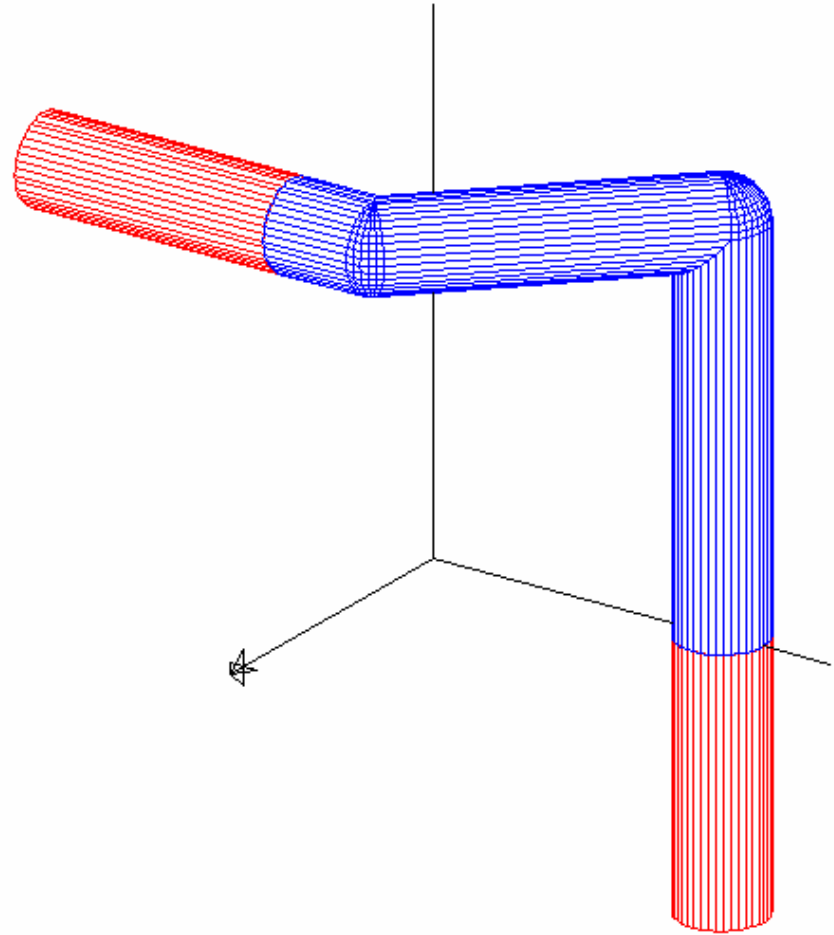
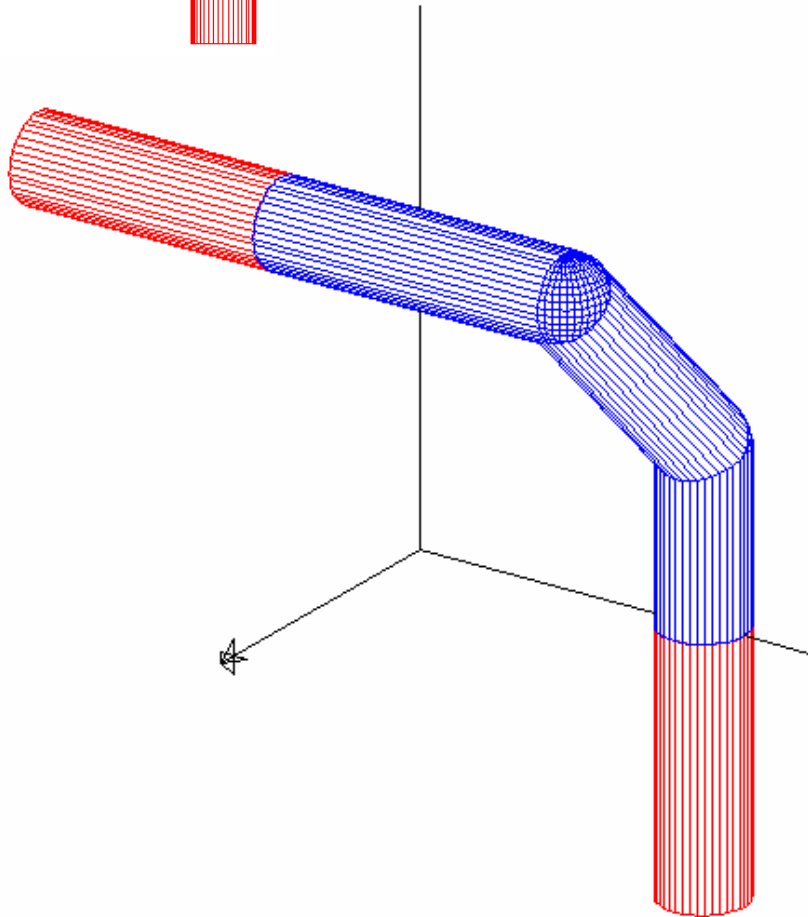
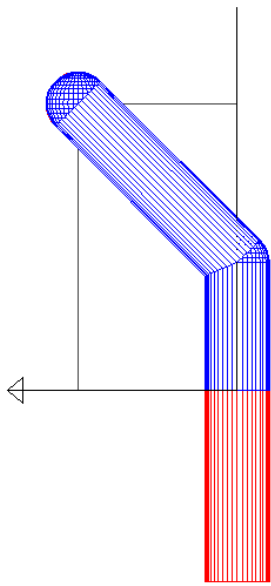
# Rohrverbindungen

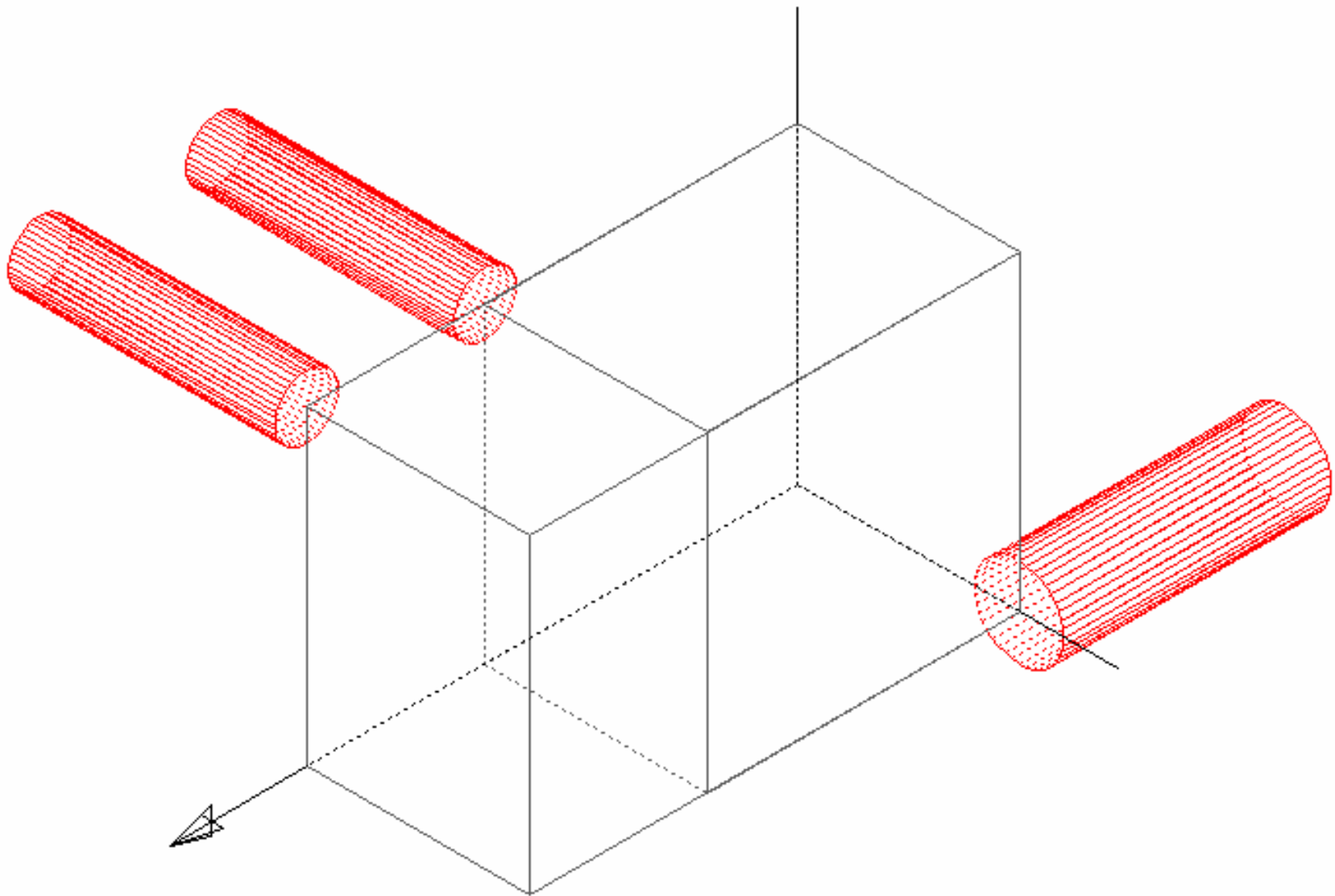


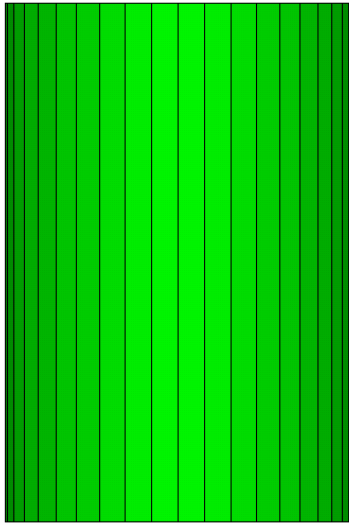


**1x Bogen 90°  
1x Bogen 45°  
gerade Rohrstücke**

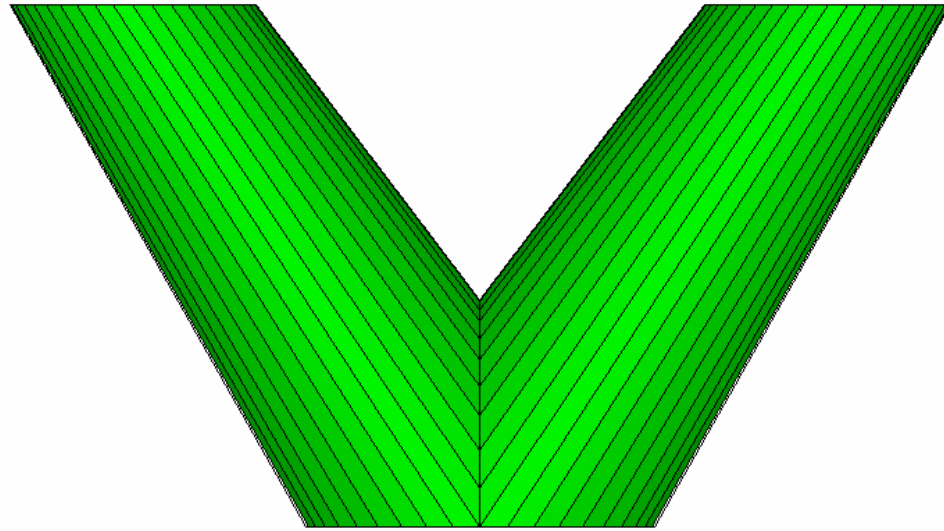
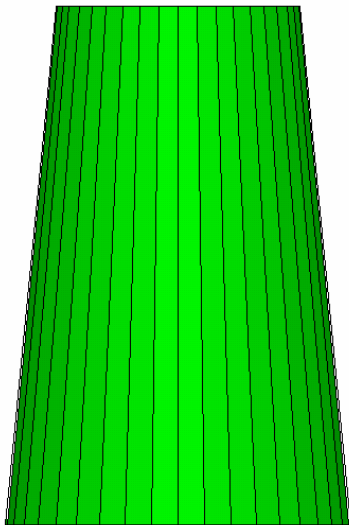




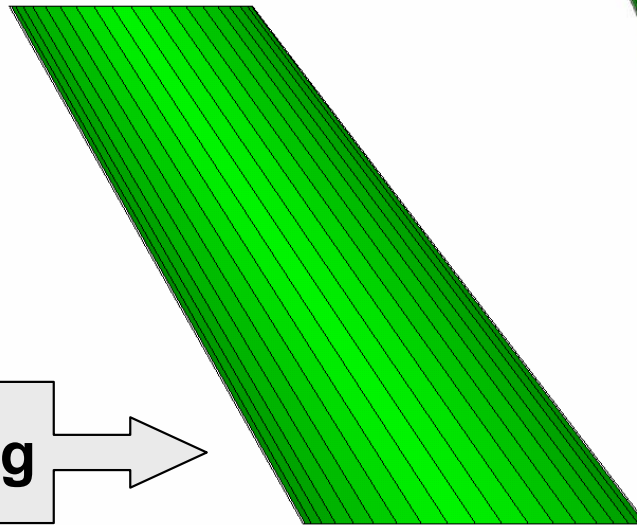




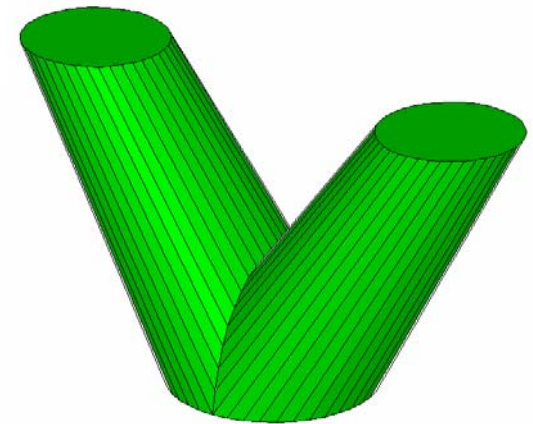
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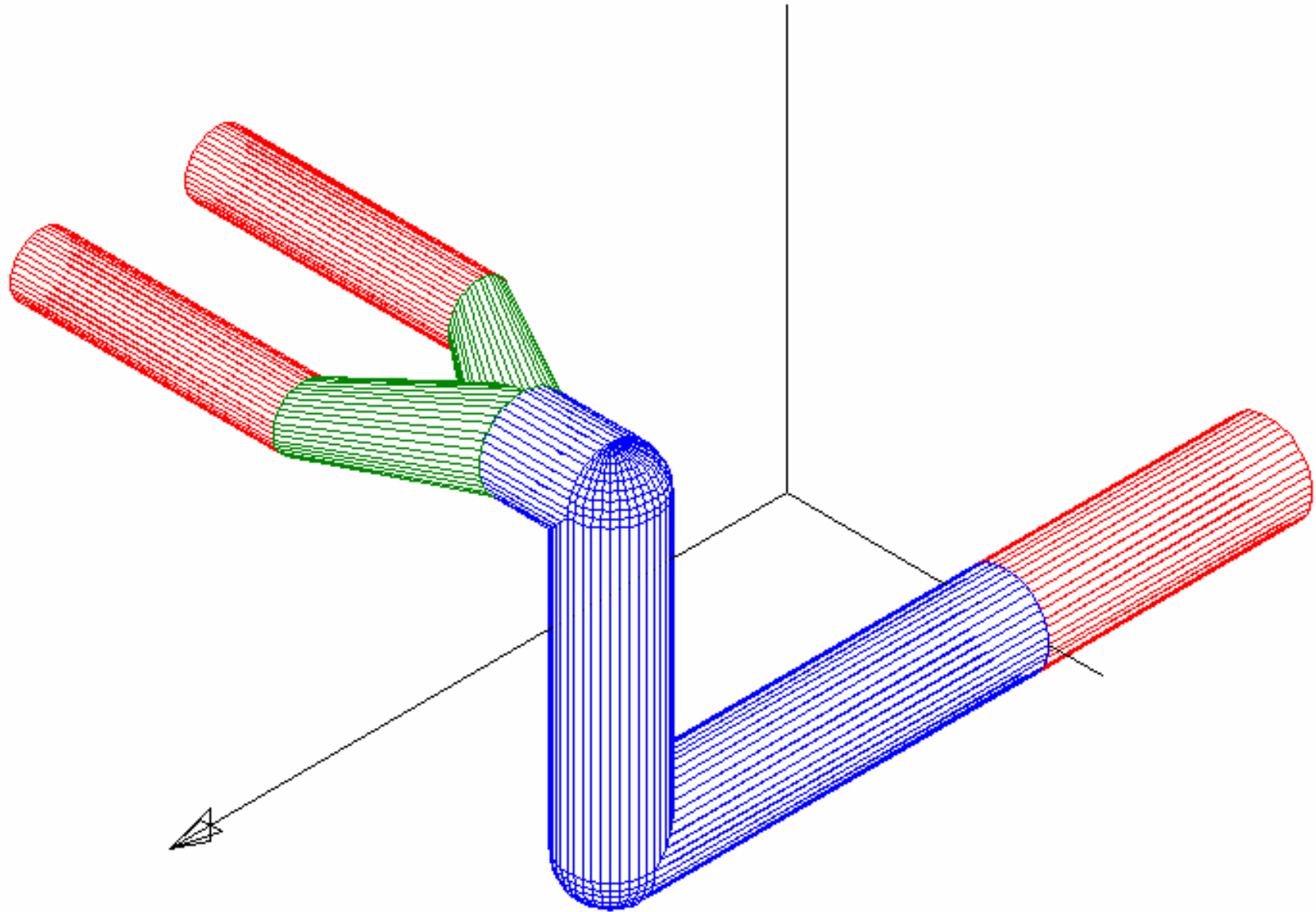


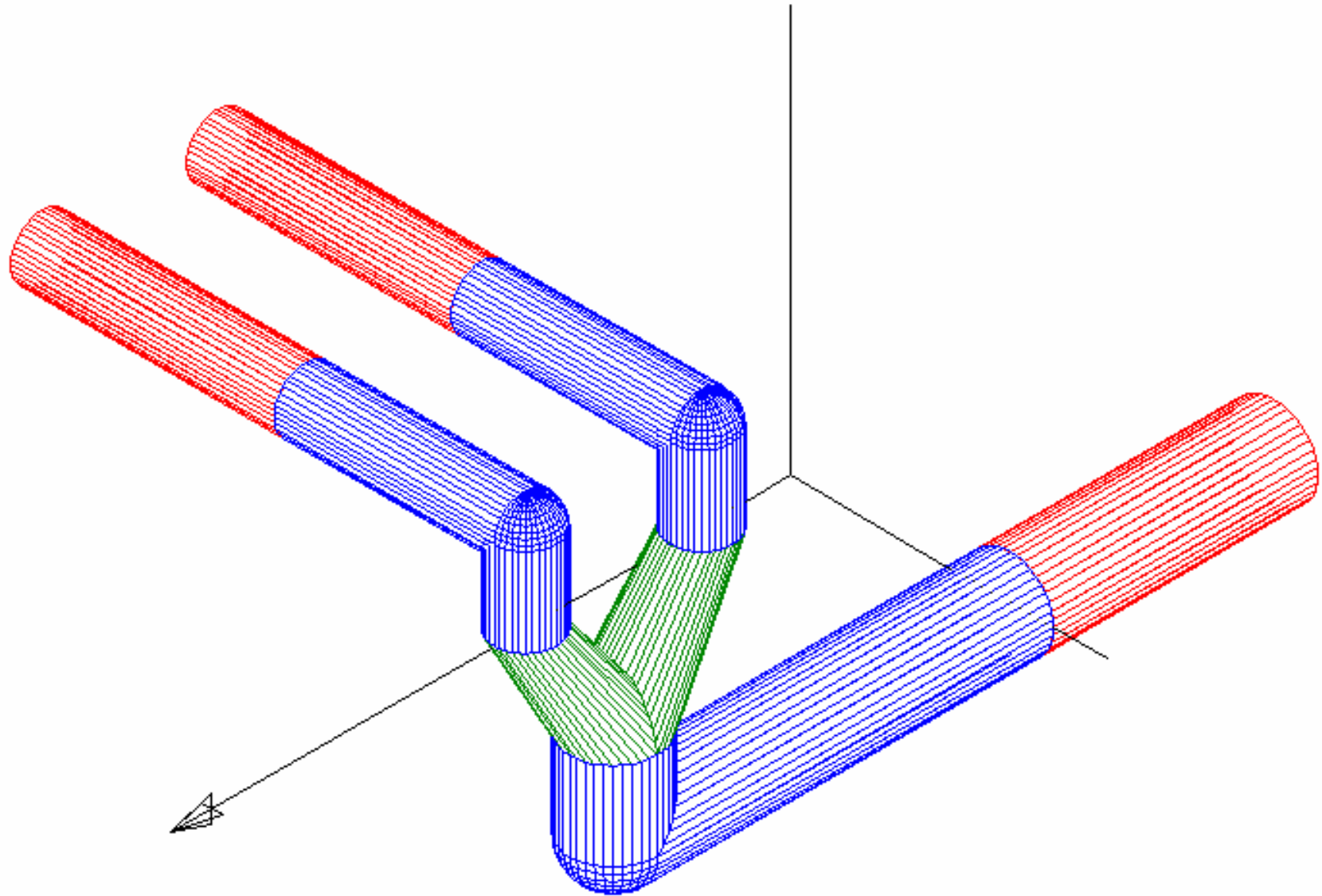
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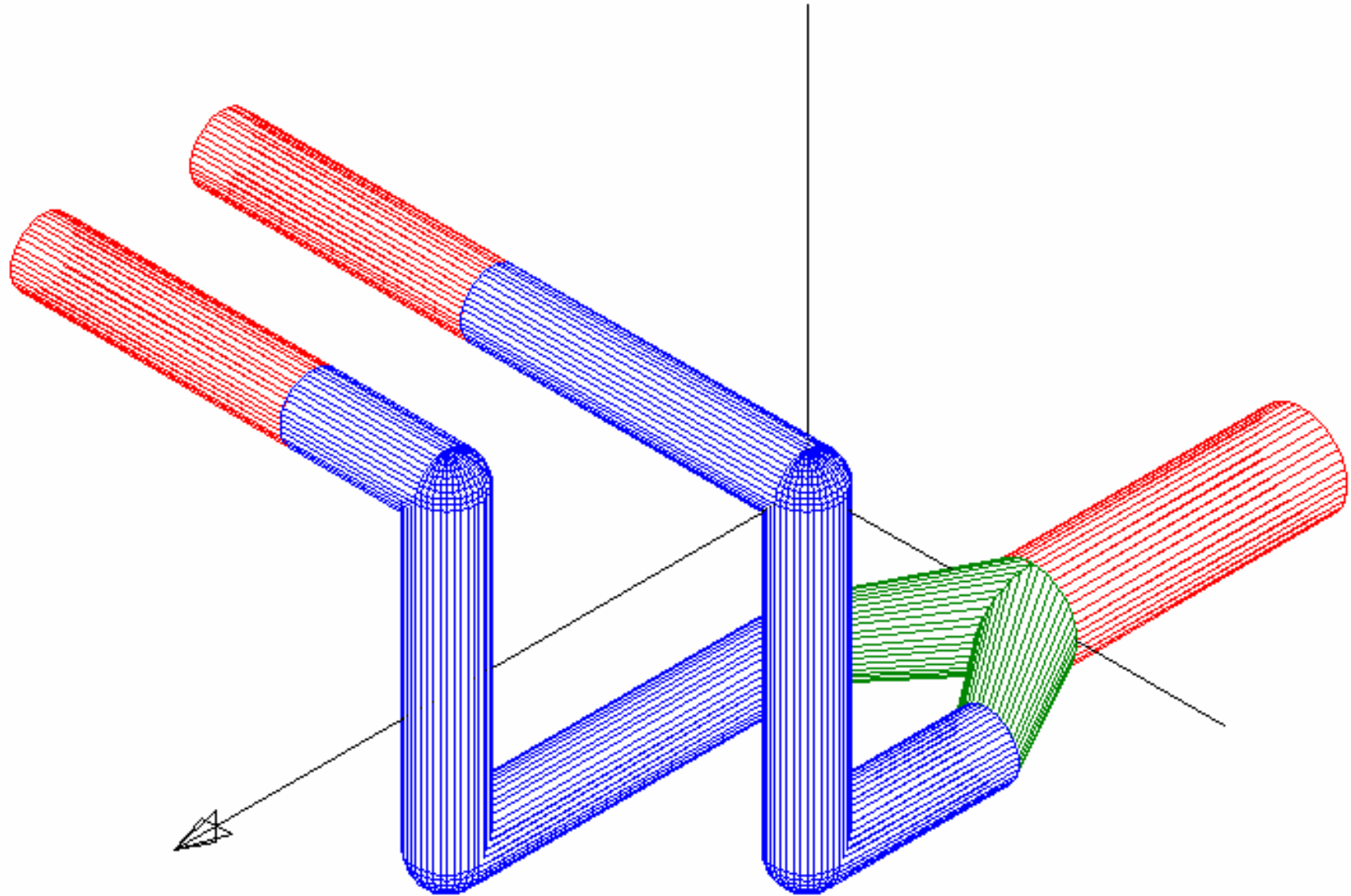


Scherung

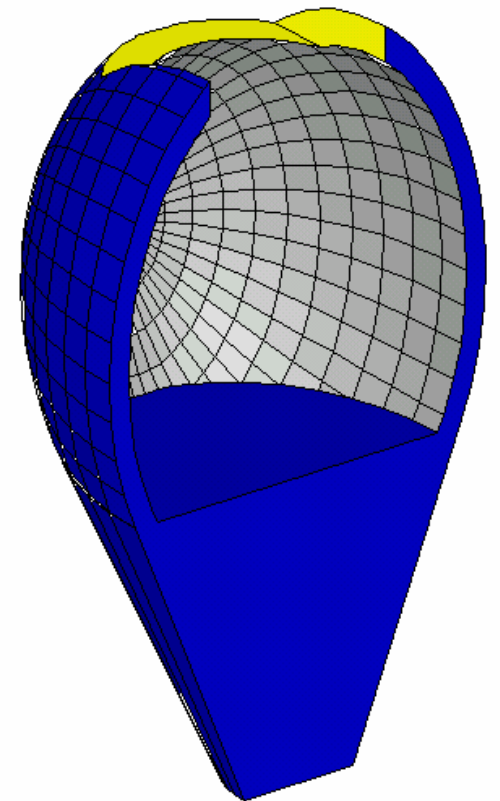
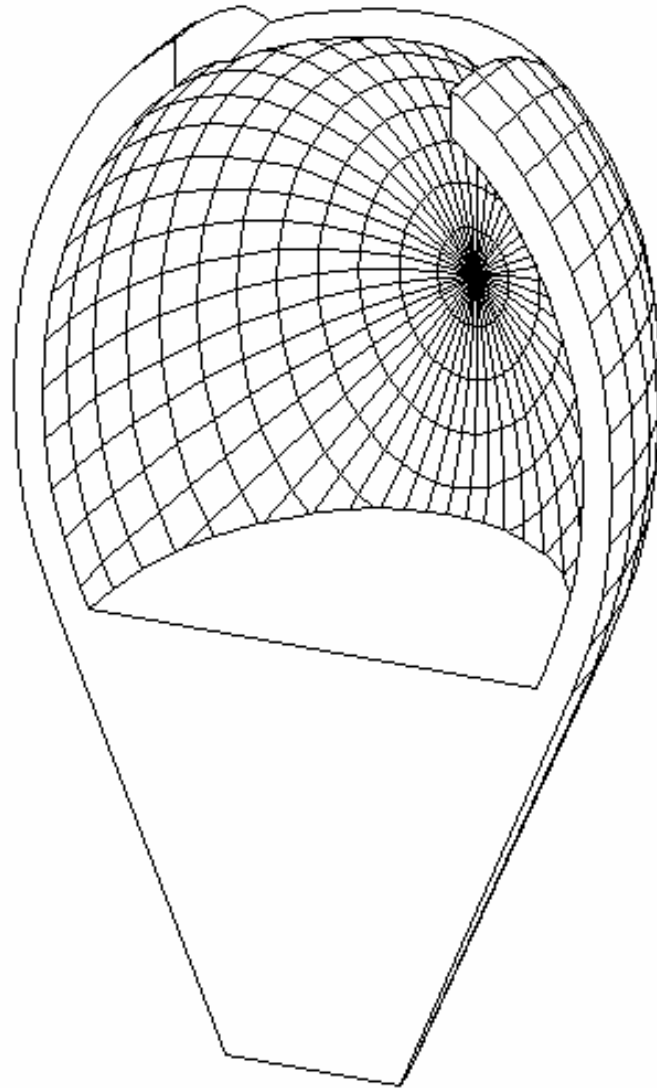
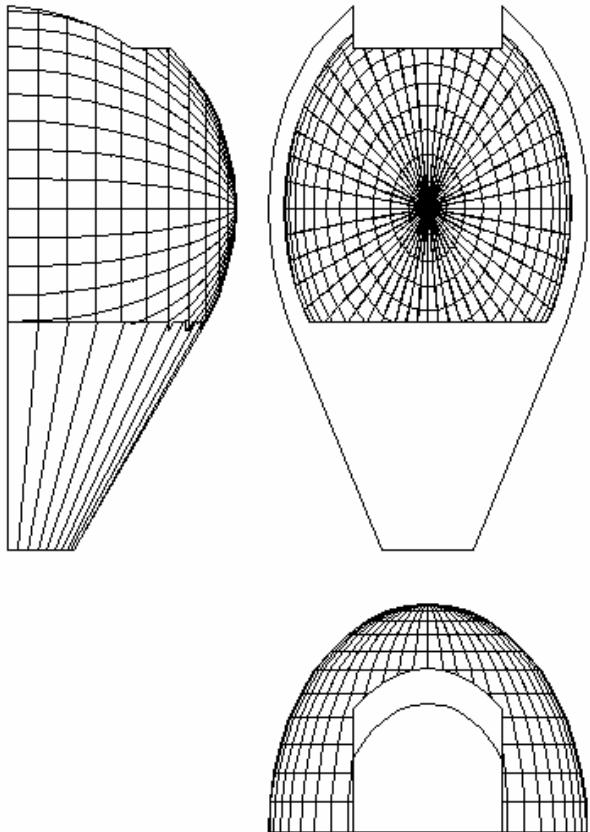


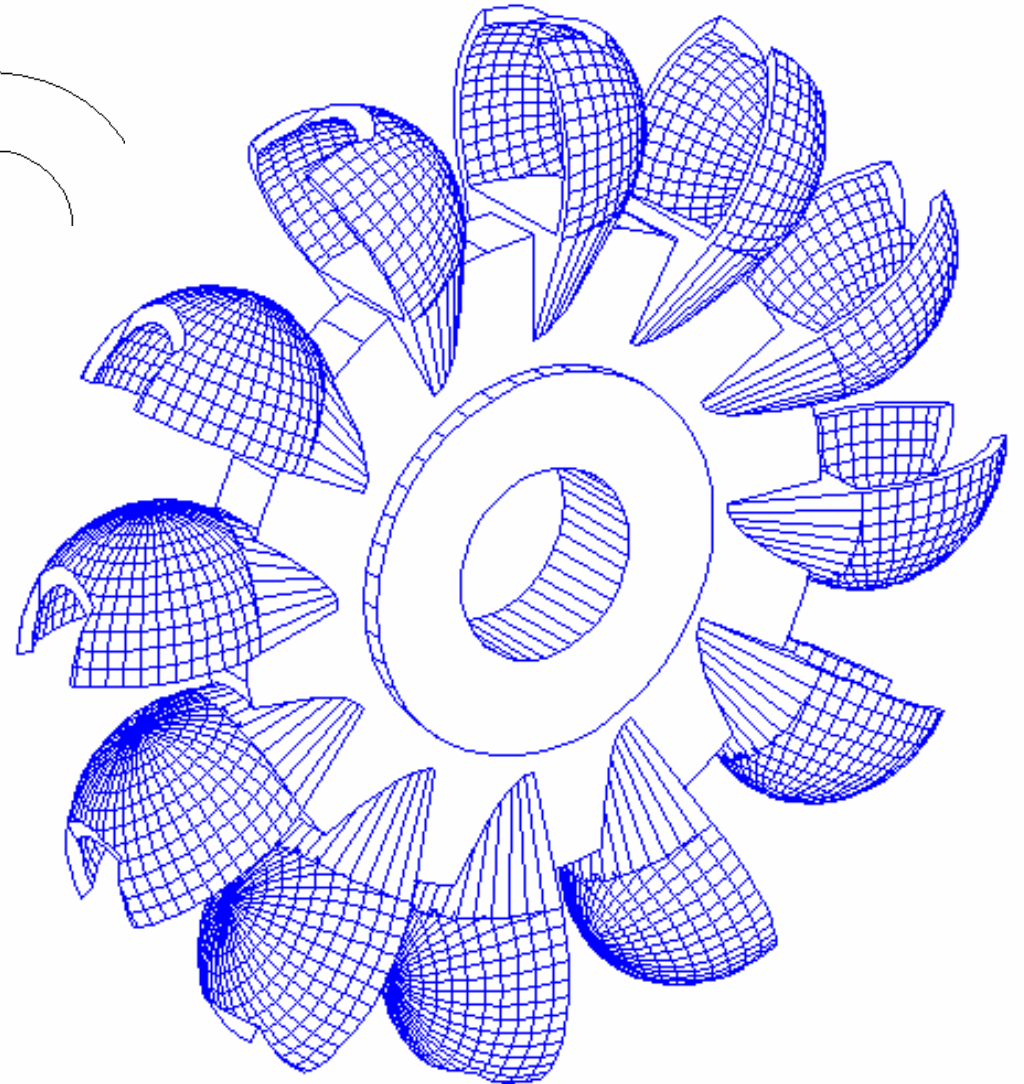
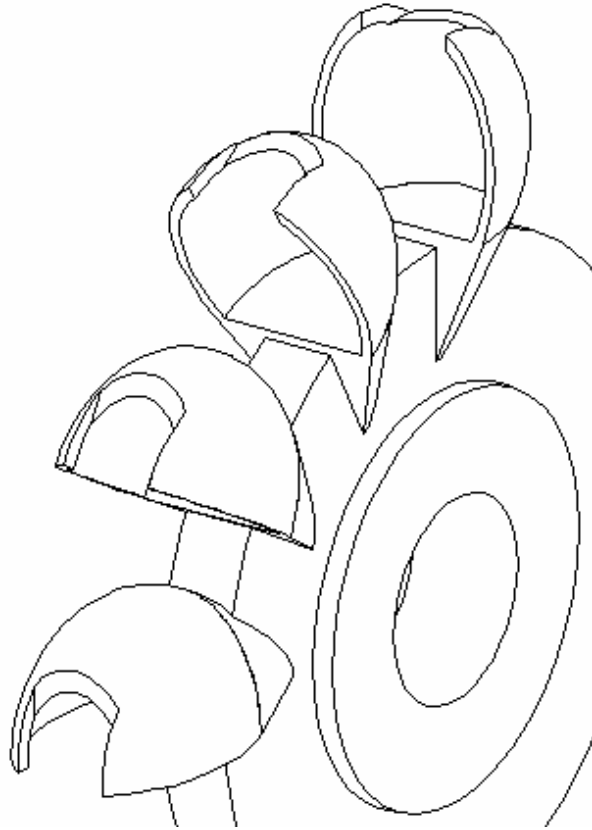
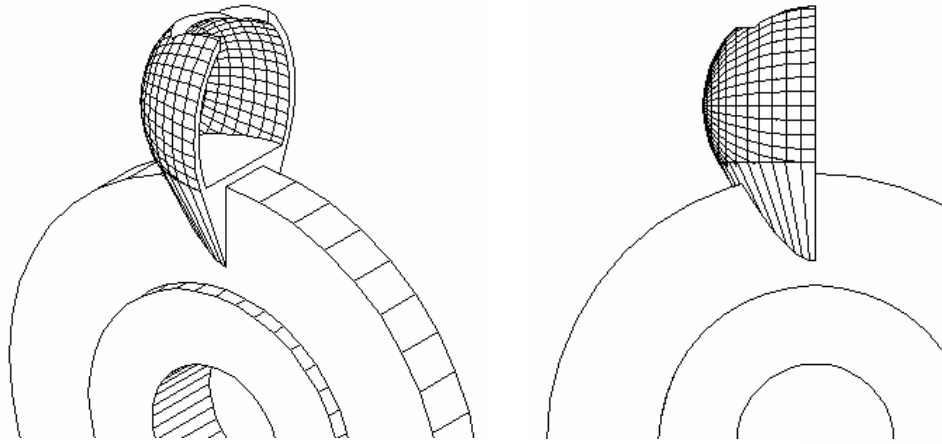




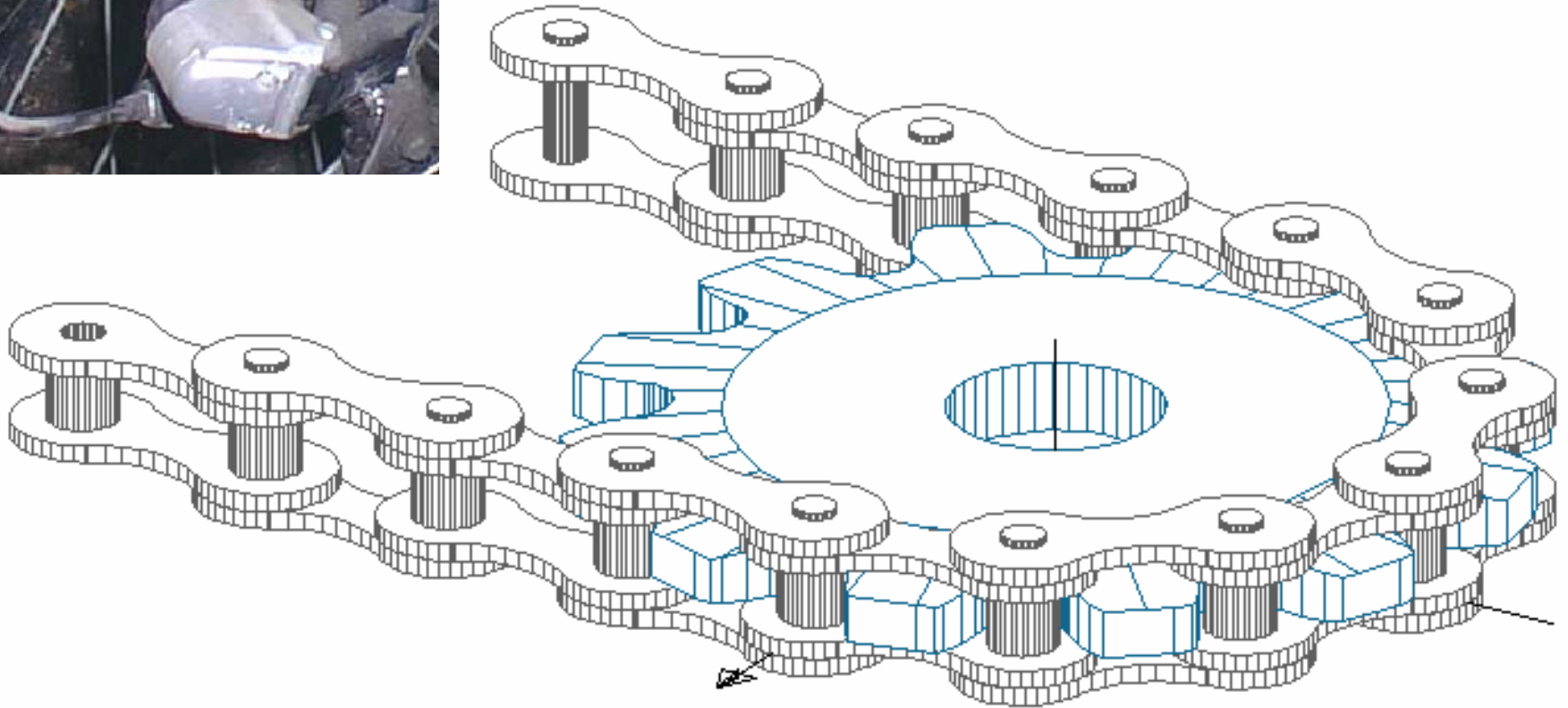
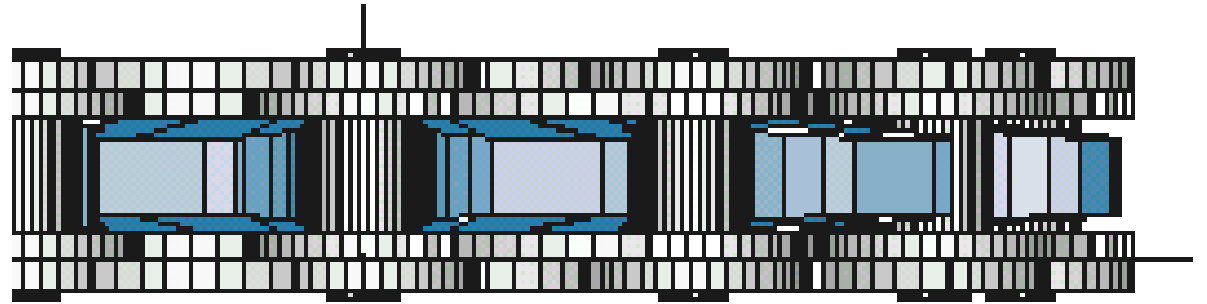


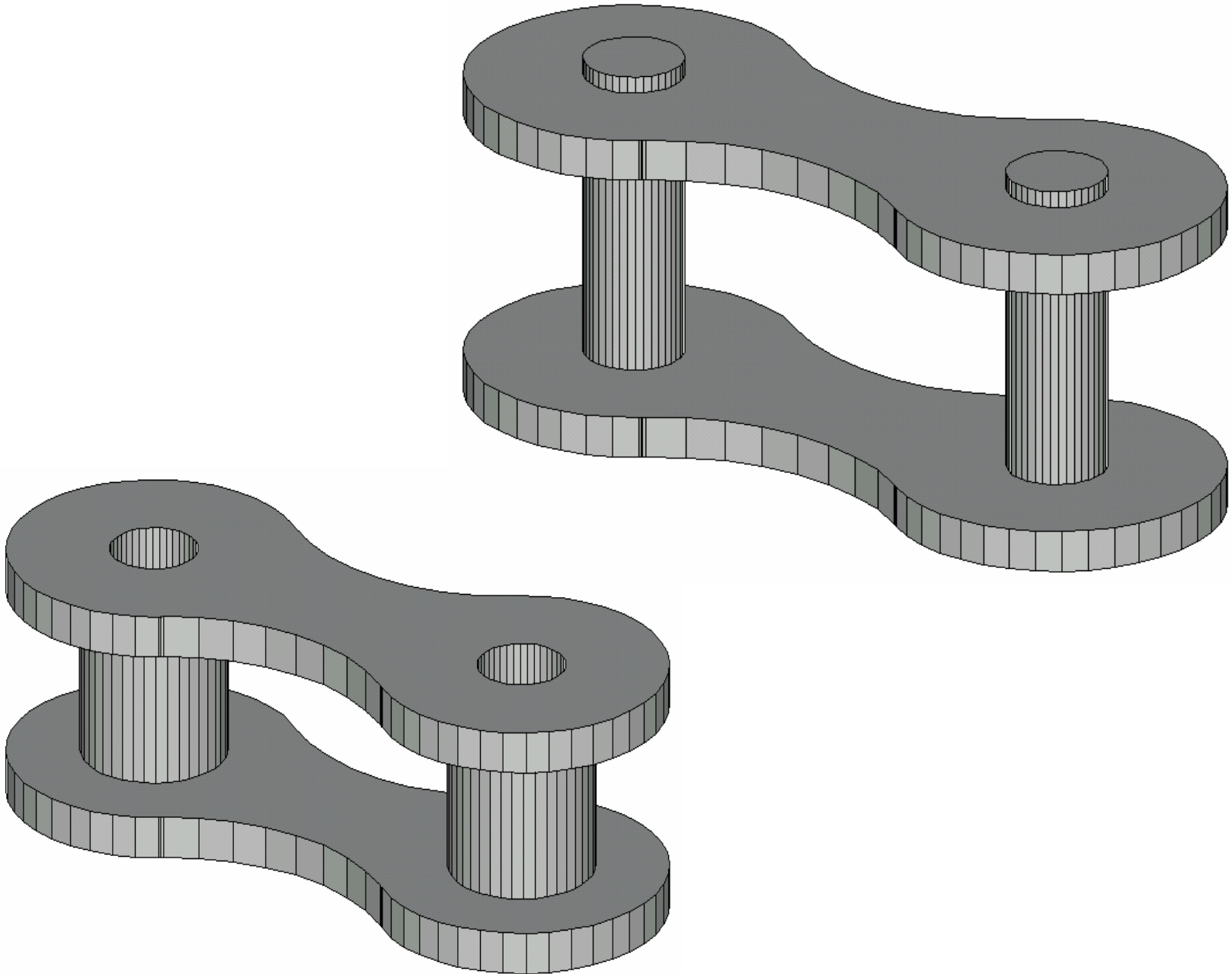
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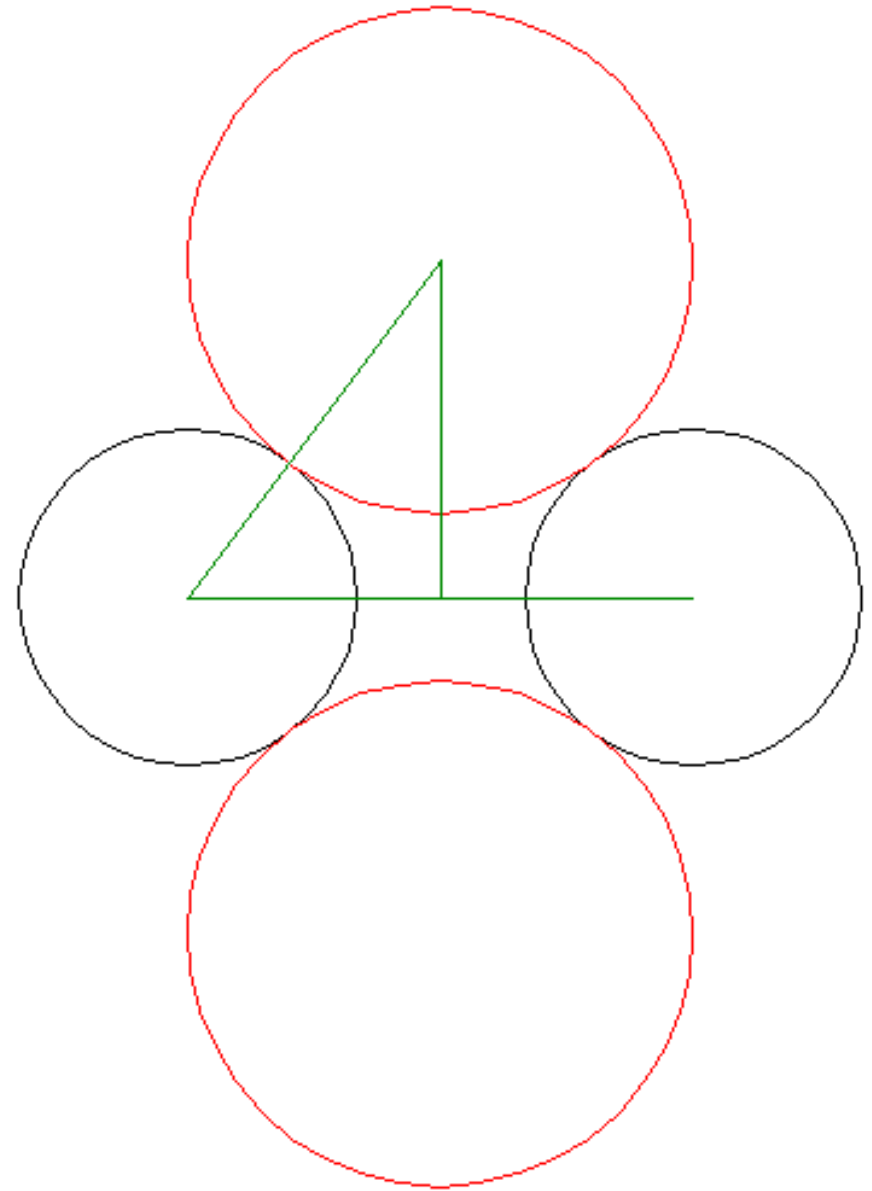
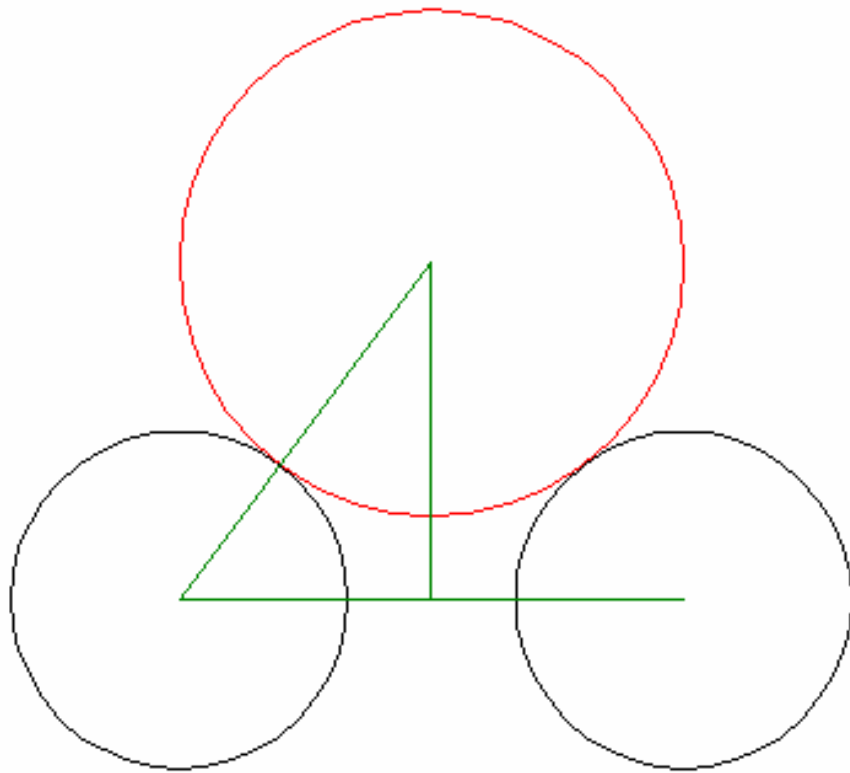


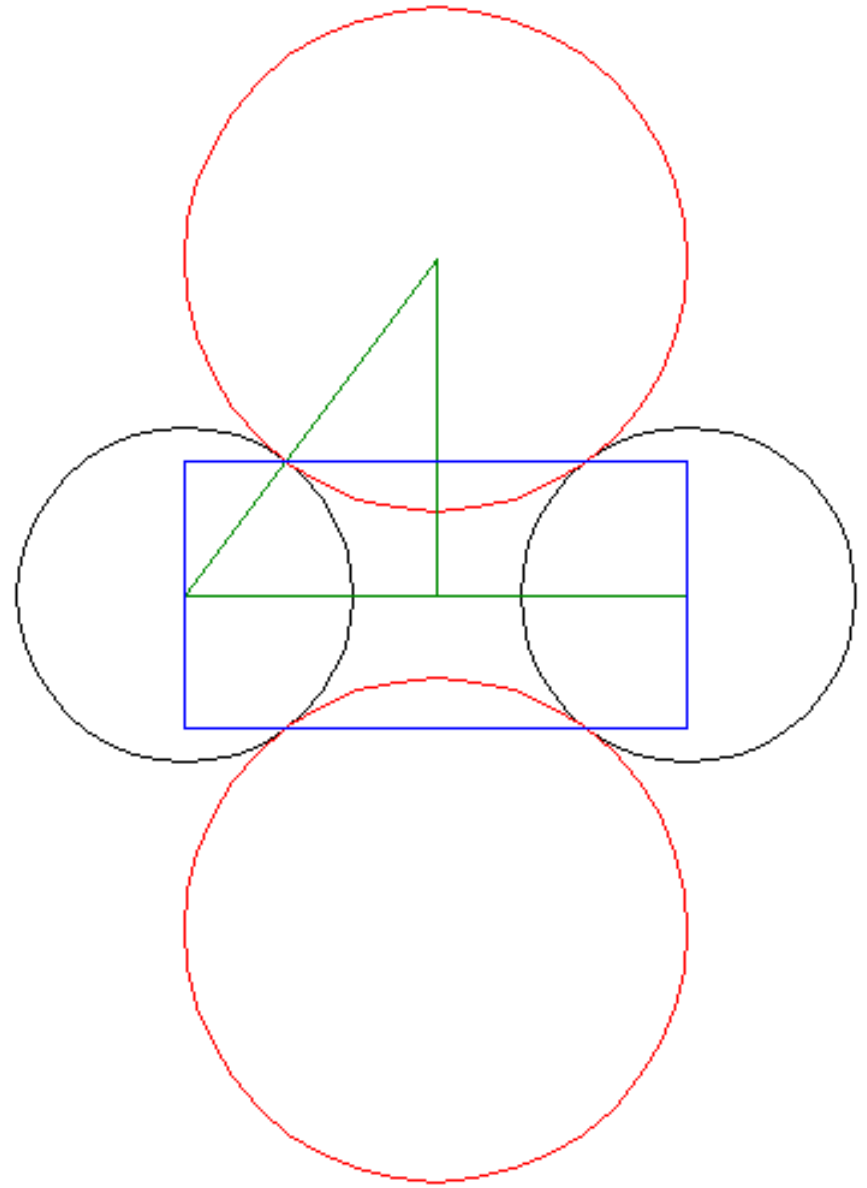
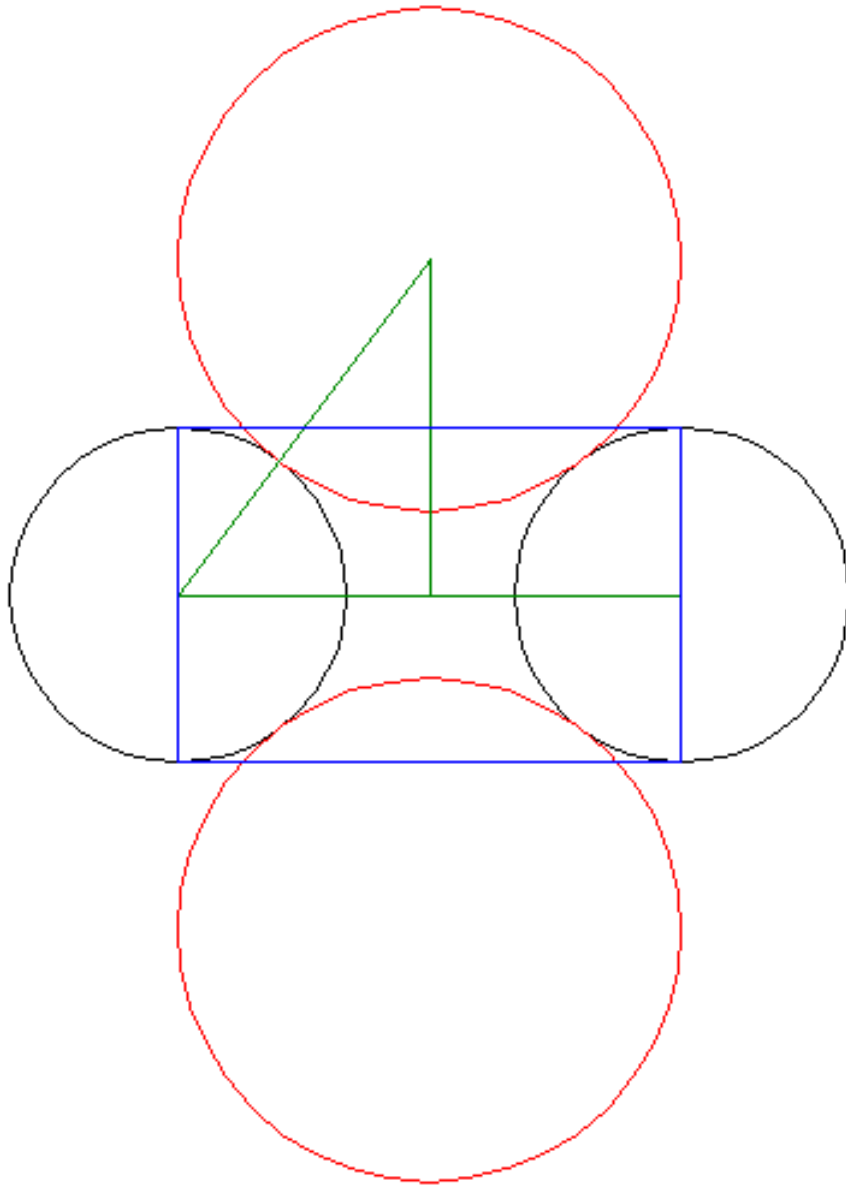


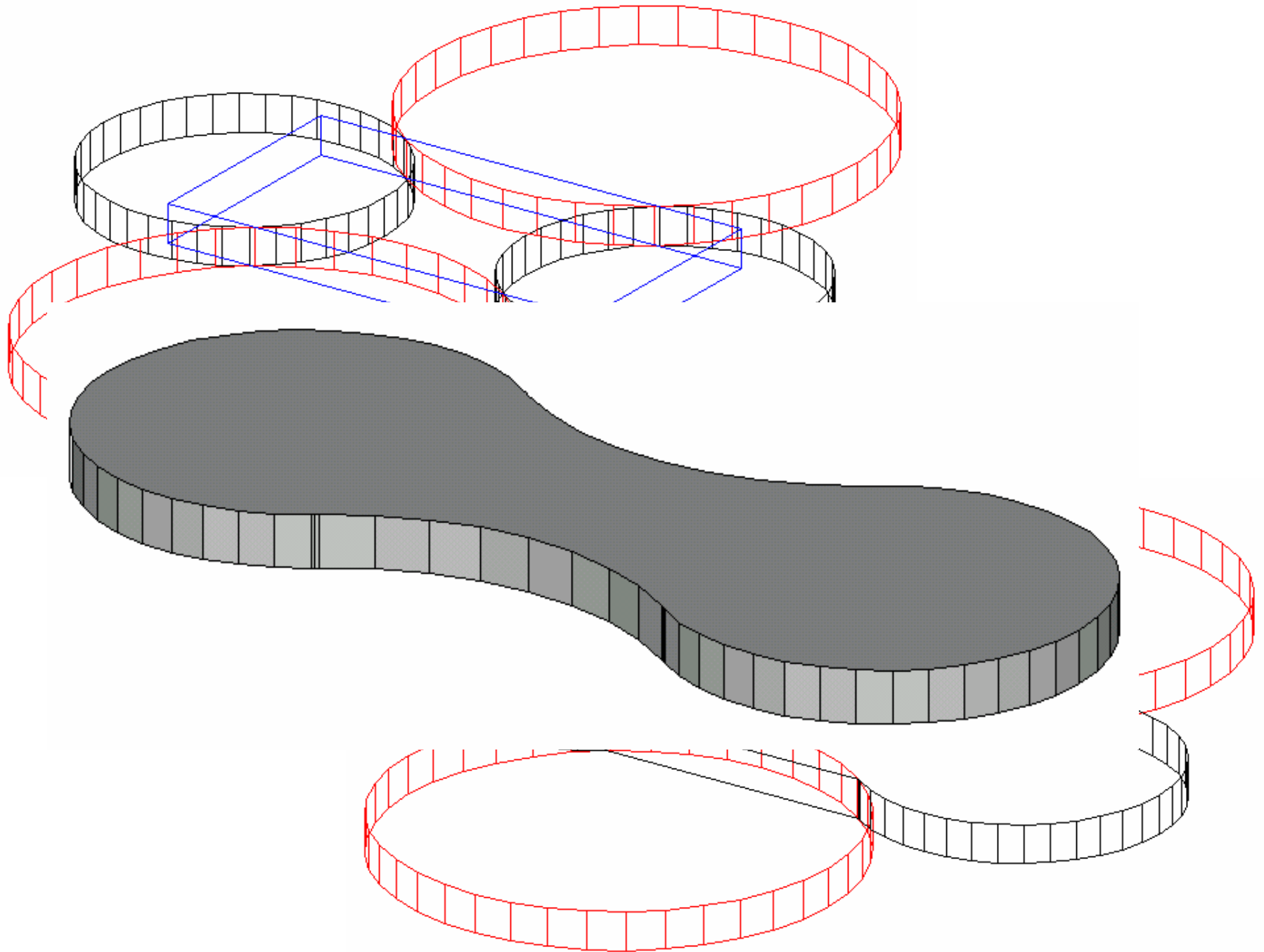
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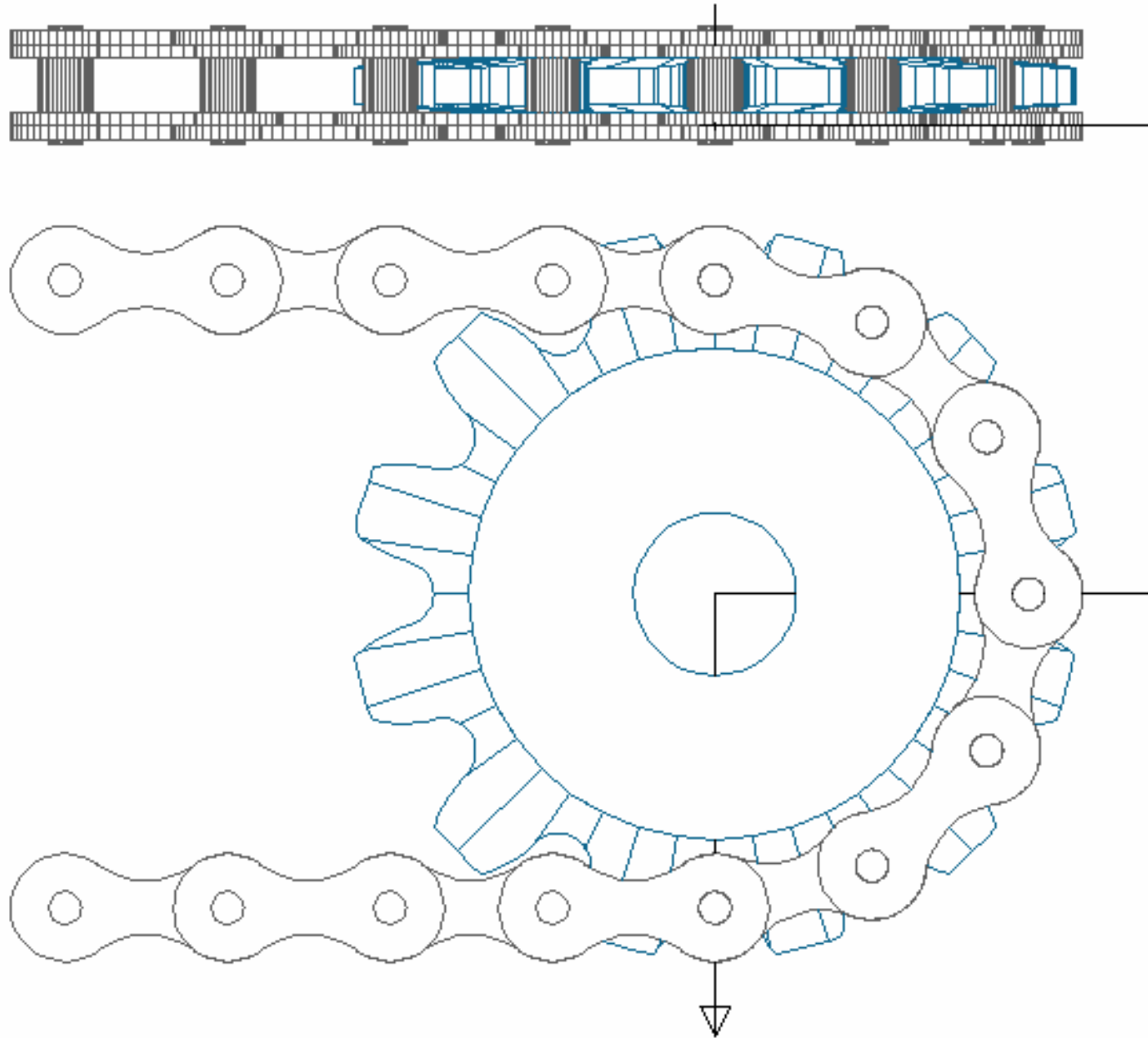


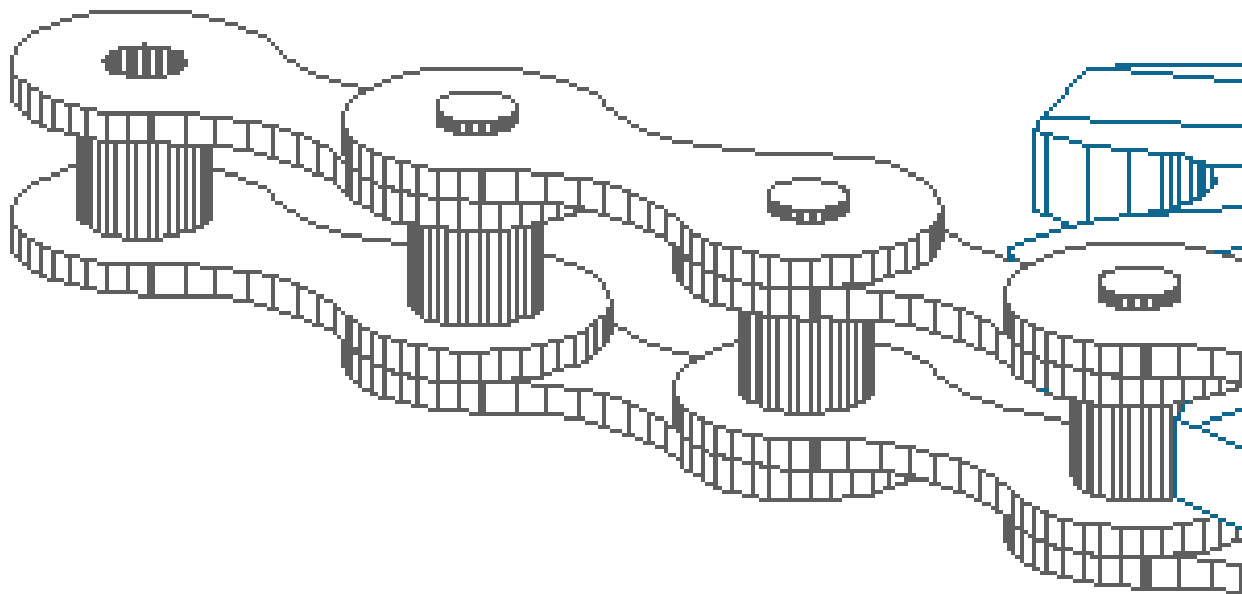
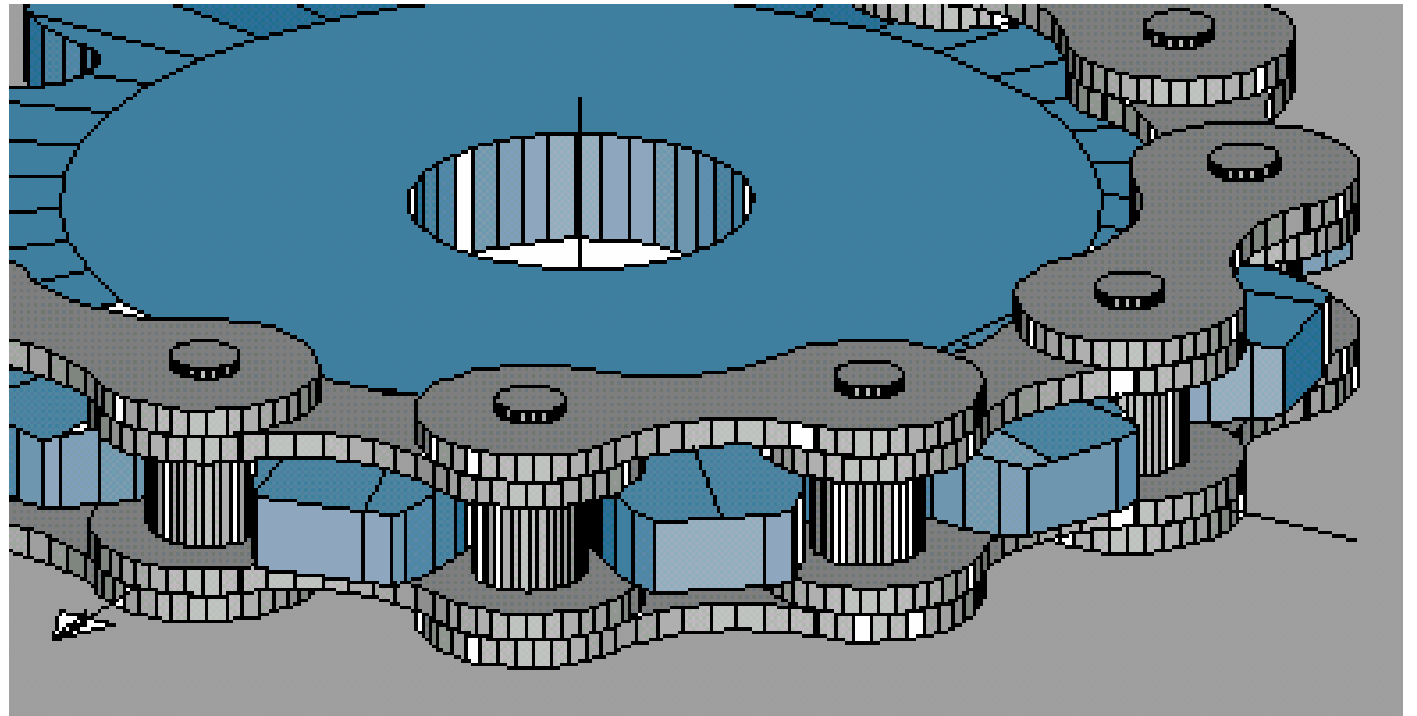




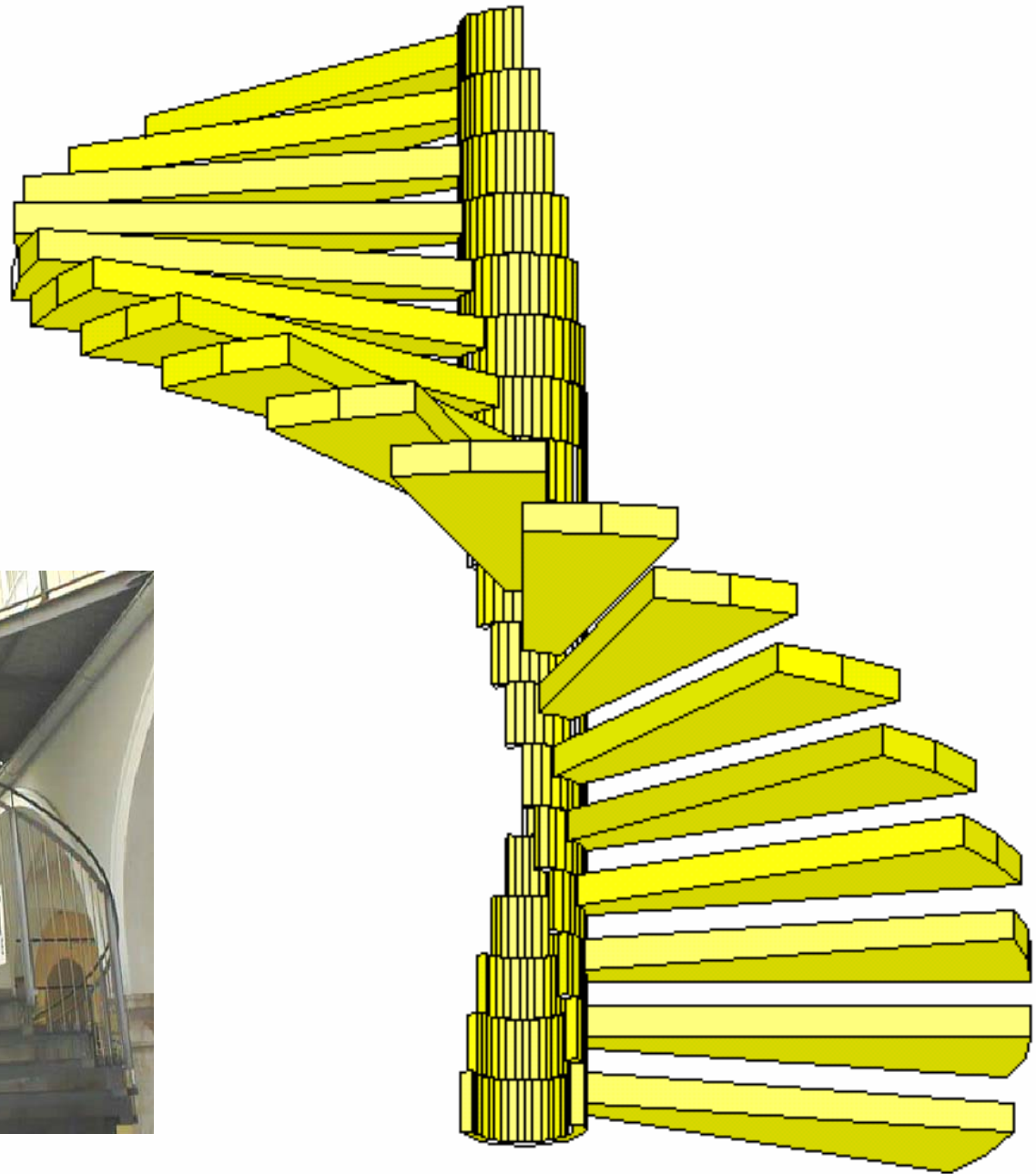


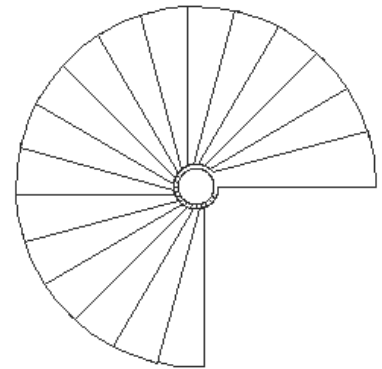
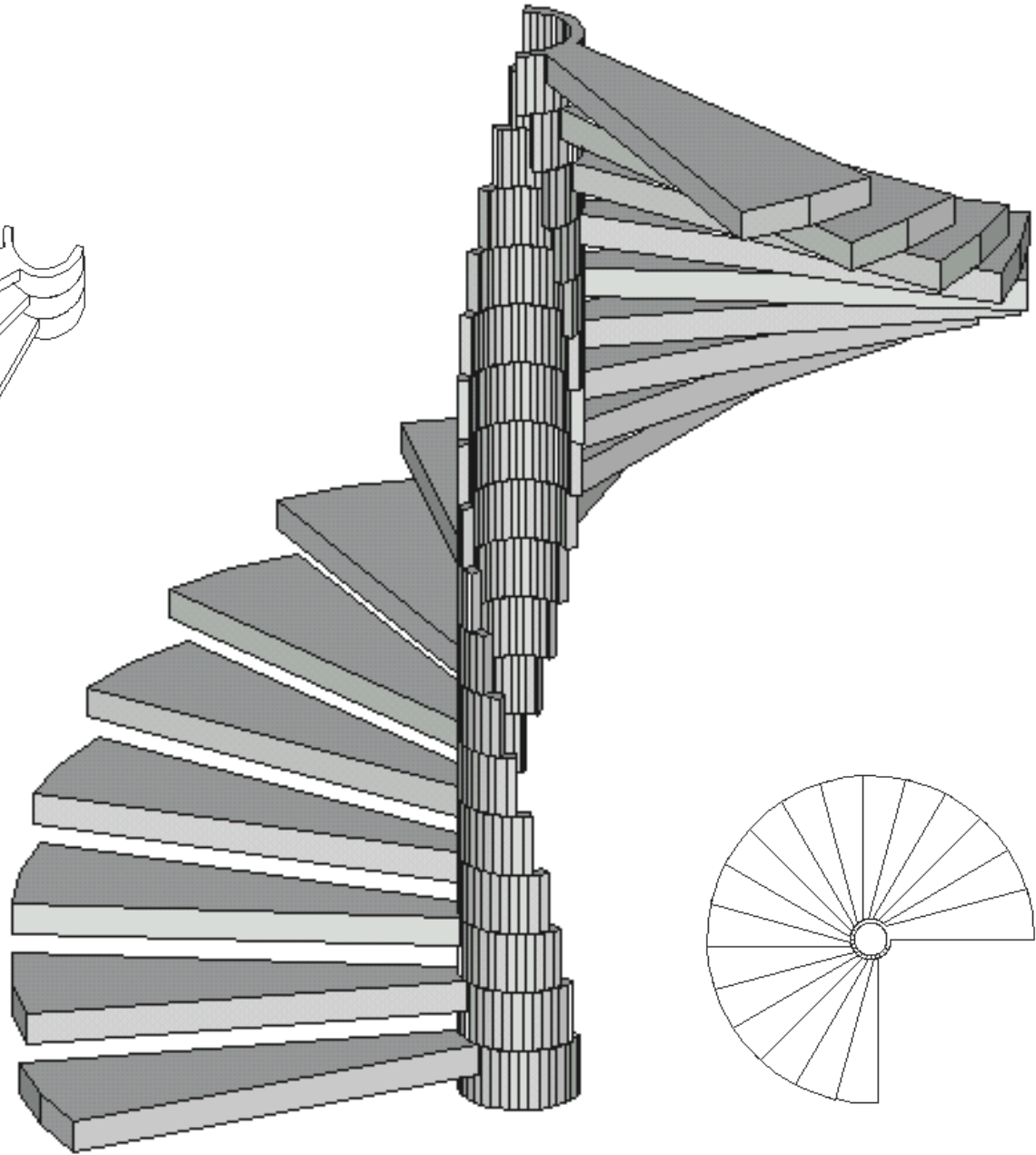
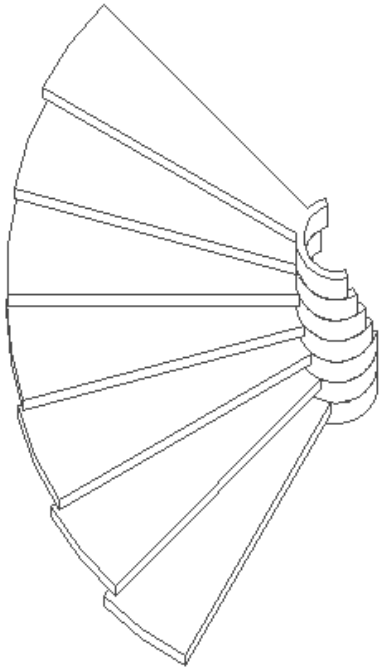
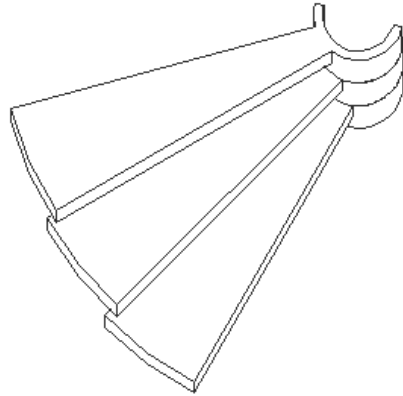
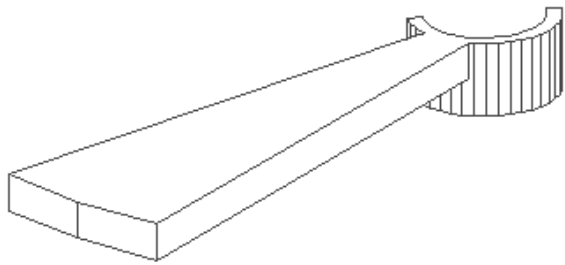




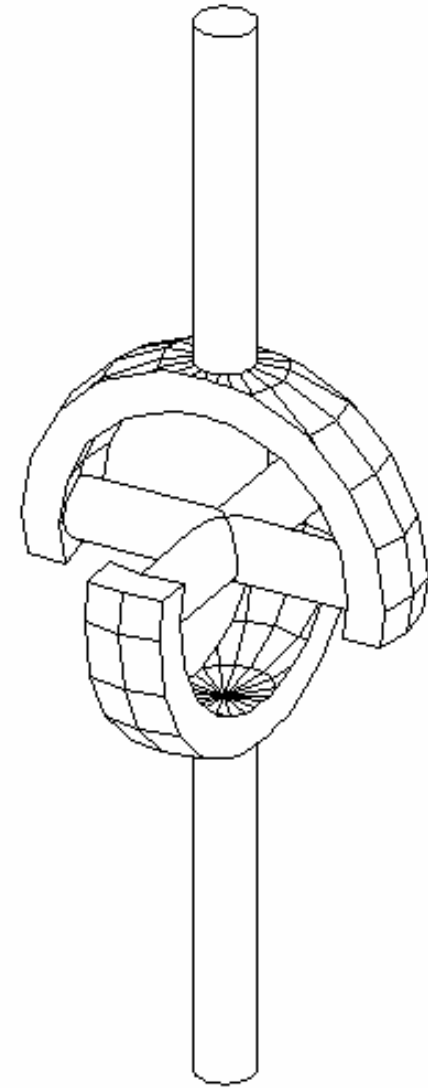
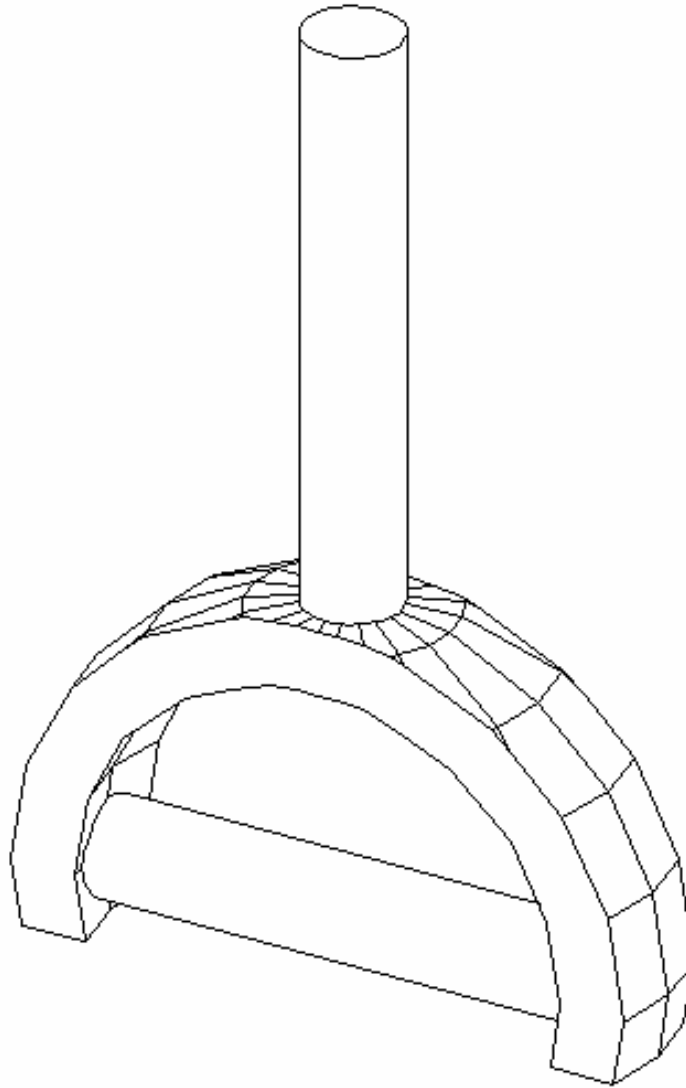
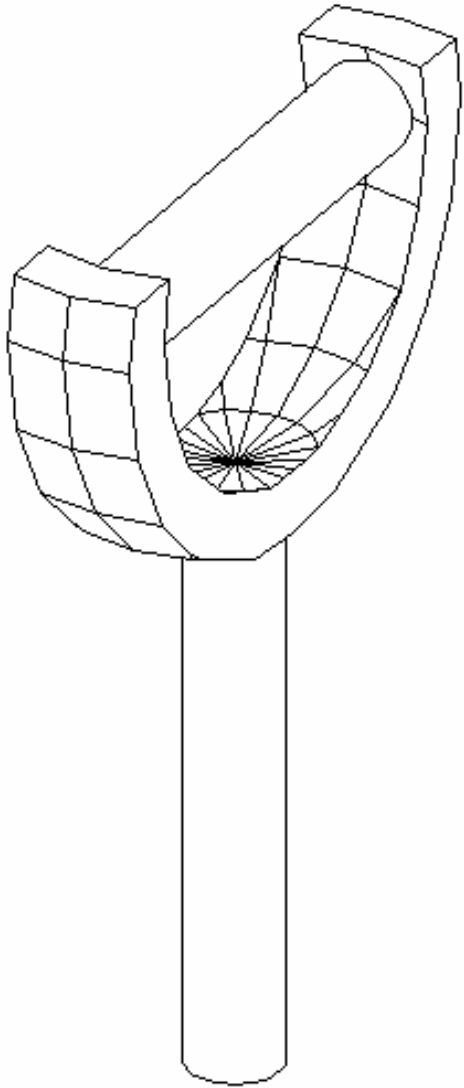


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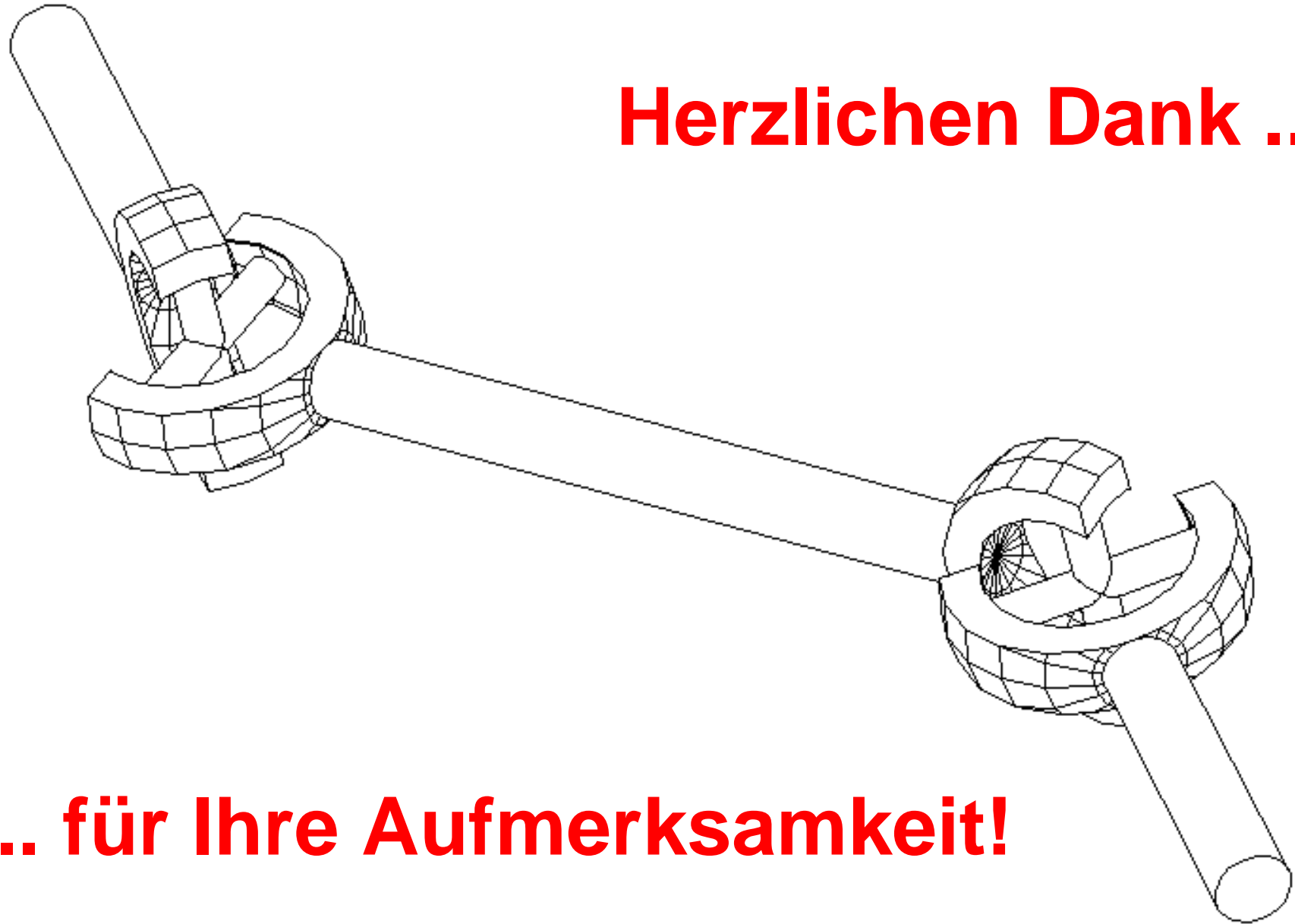




# Kreuzgelenk



**Herzlichen Dank ...**



**... für Ihre Aufmerksamkeit!**