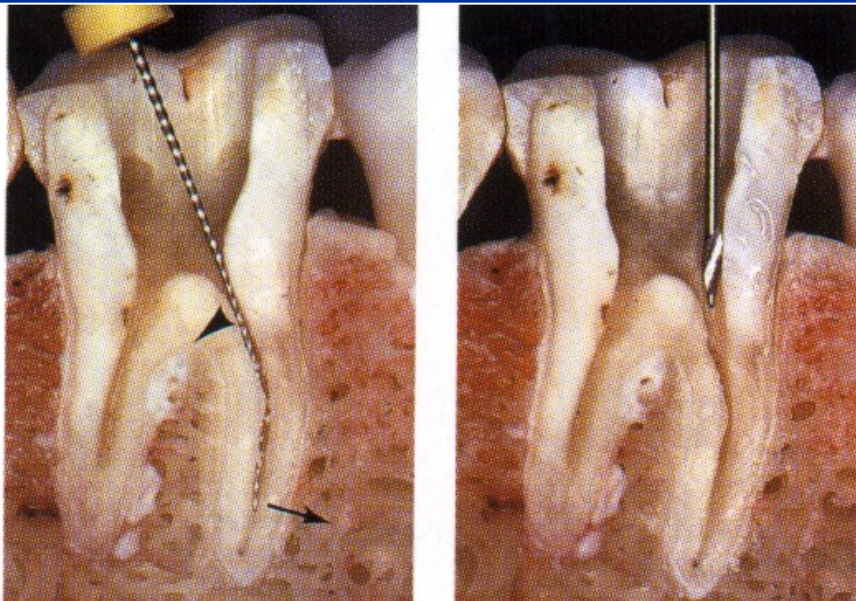
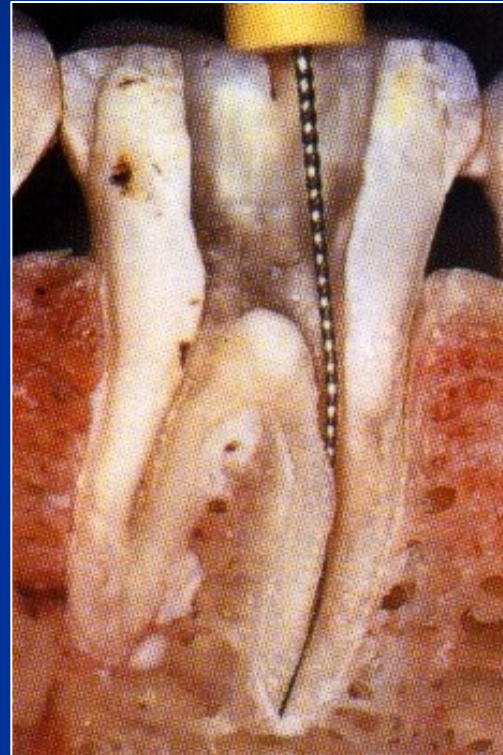
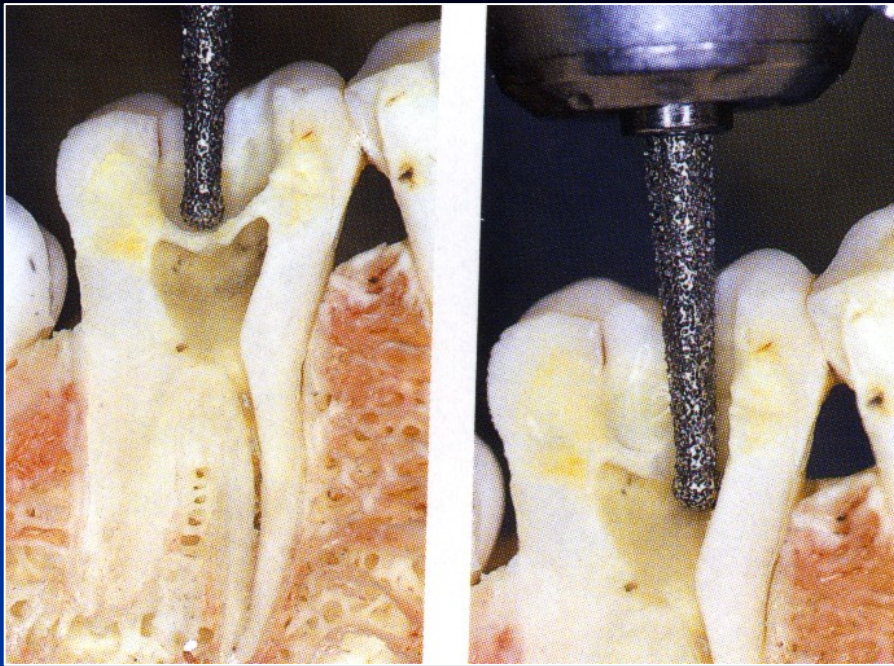


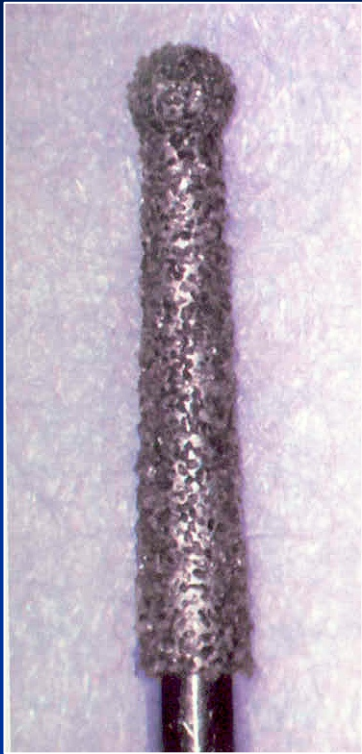
# Access



# Access



# Access – opening of the pulp chamber



Dia trepan



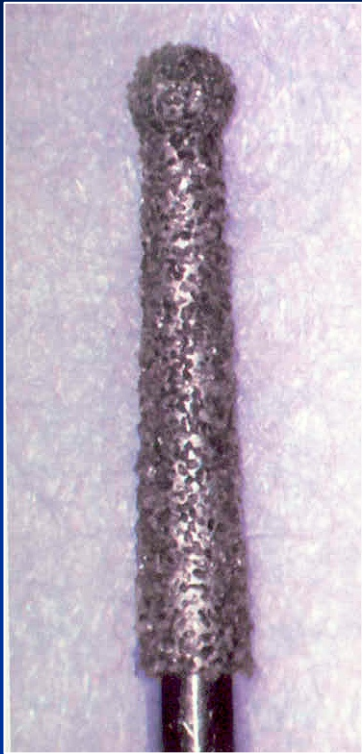
Dia balls



Round Burs



# Preparation of the endodontic cavity –facilitating form

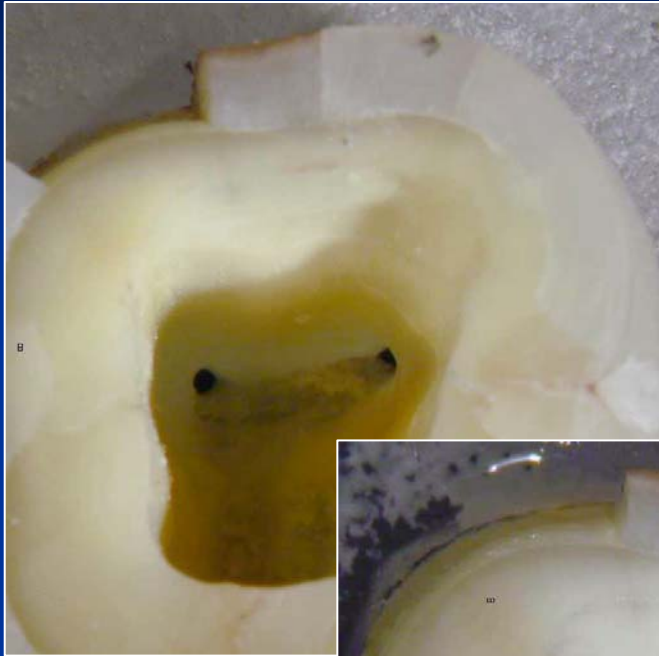


Dia trepan

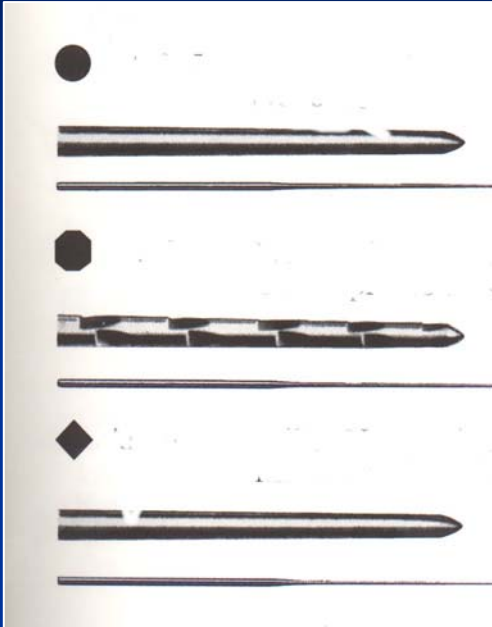


Fissure burs

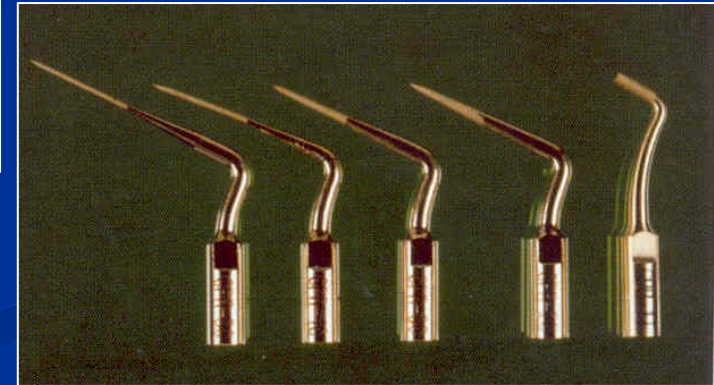
Instruments with safe  
ended tips),  
Acc. to Batt



# Root canal access



↑  
Endodontic probes  
Microopeners



Ultrasound

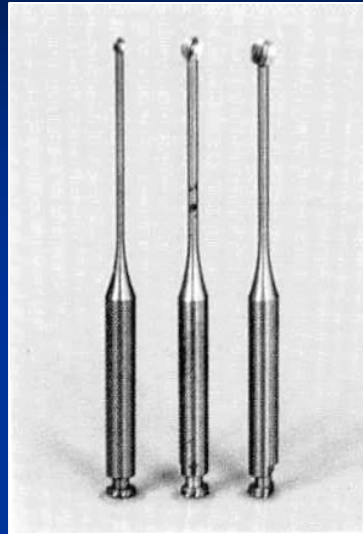


Dye

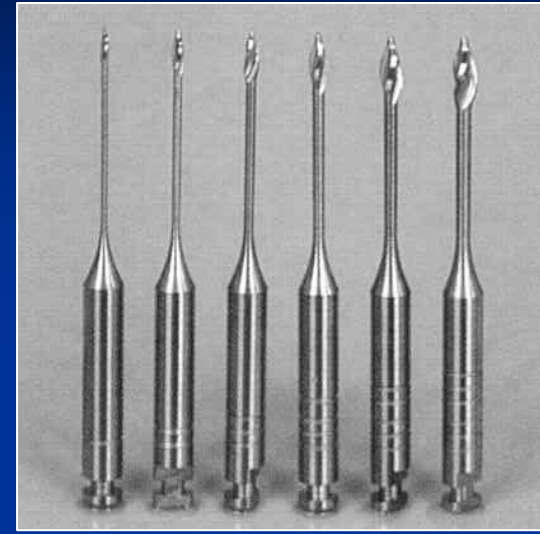
# Opening of the root canal orifices



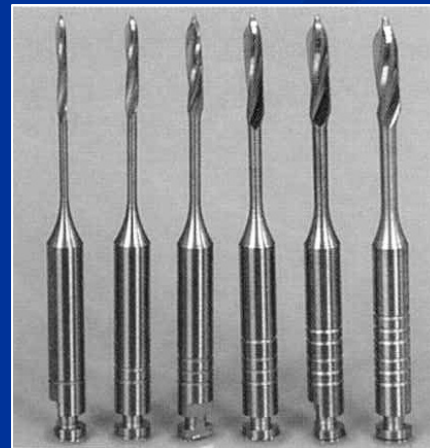
Round burs



Miller's burs



Gates Glidden's burs



Peeso – Largo burs

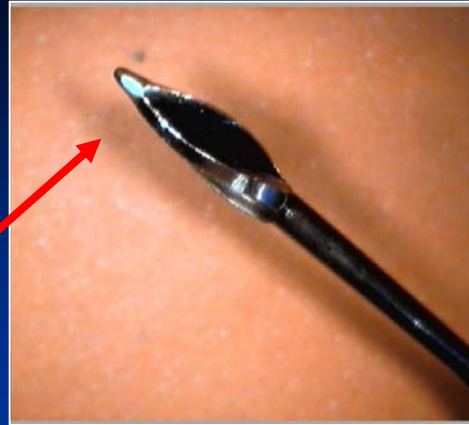


Gates - Glidden

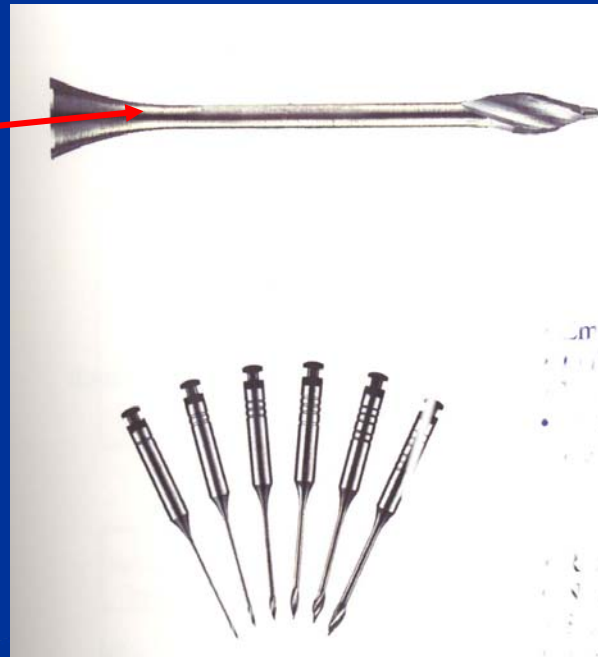


Peeso-Largo

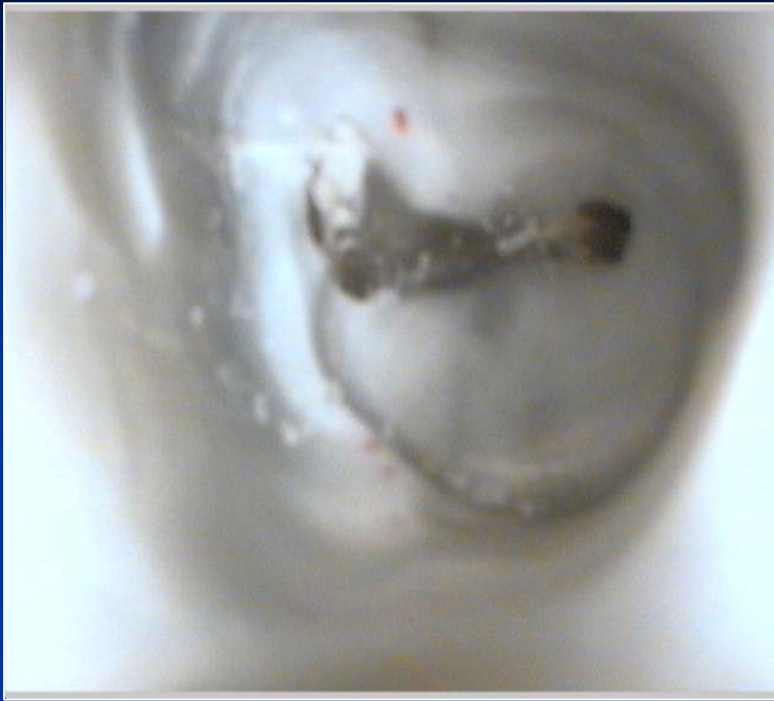




Gates – Glidden:



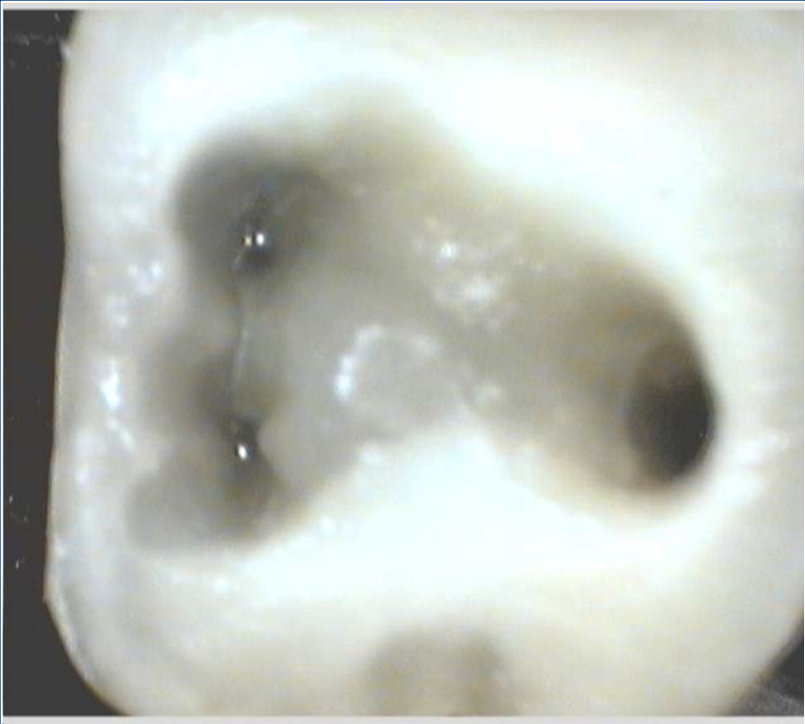
Point of breakage



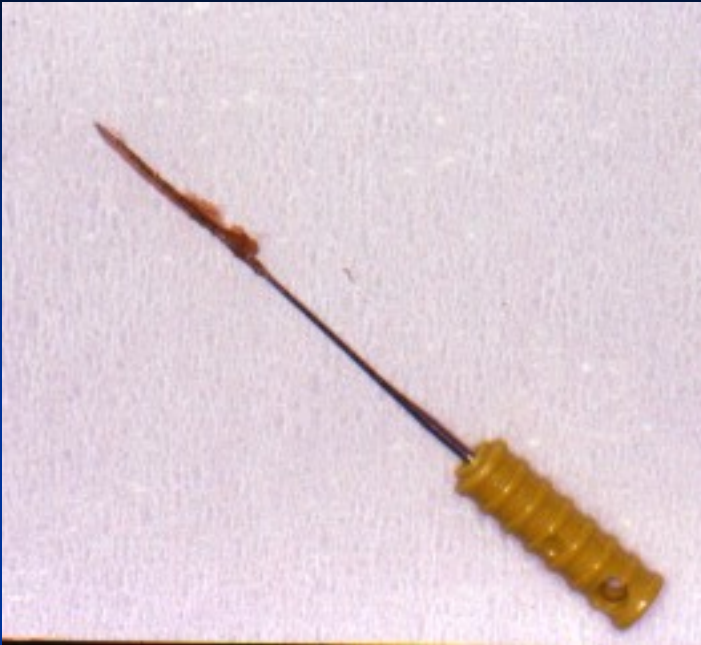
Bad endodontic cavity



Good endodontic cavity

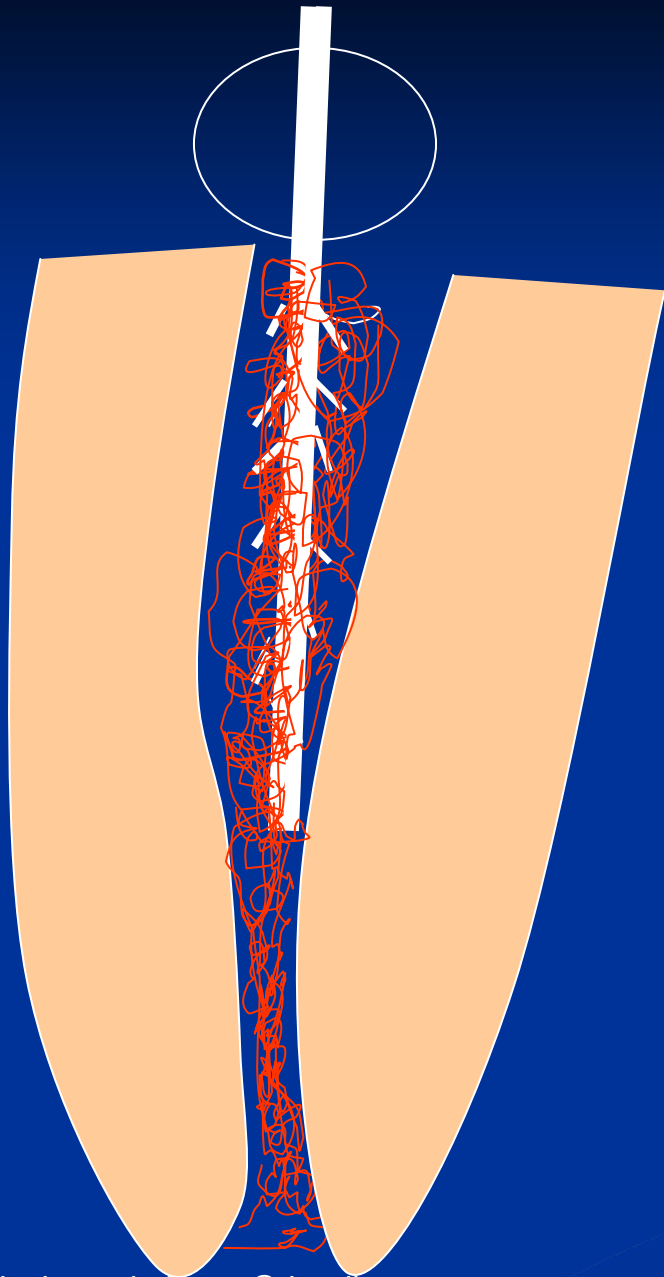


## Extraction of the content of the root canal - exstirpation



Pulpextraktor – made of soft wire





➤ **Rotation and exstirpation!**

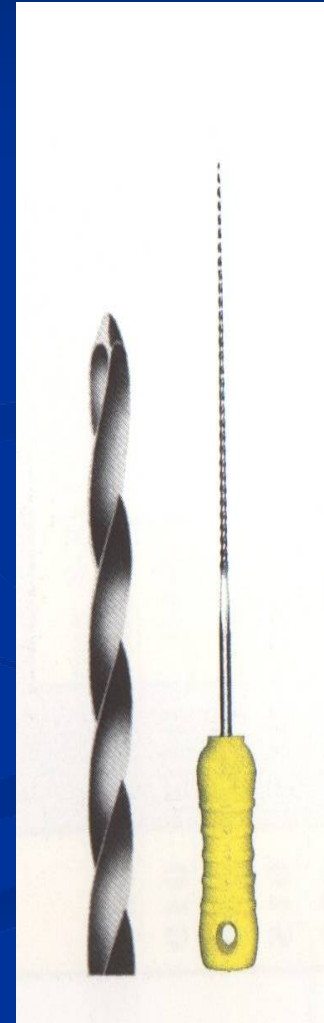
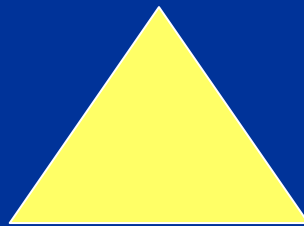
# Canal shaping

➤ Reamers

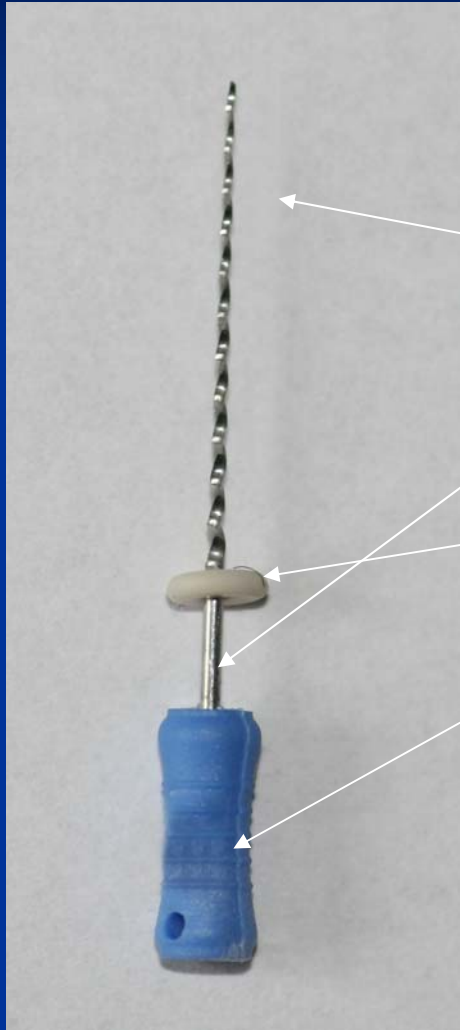
➤ Files

# Reamer

- **K-reamer**



# Reamer



Working –cutting part

Shank

Stopper

Grip

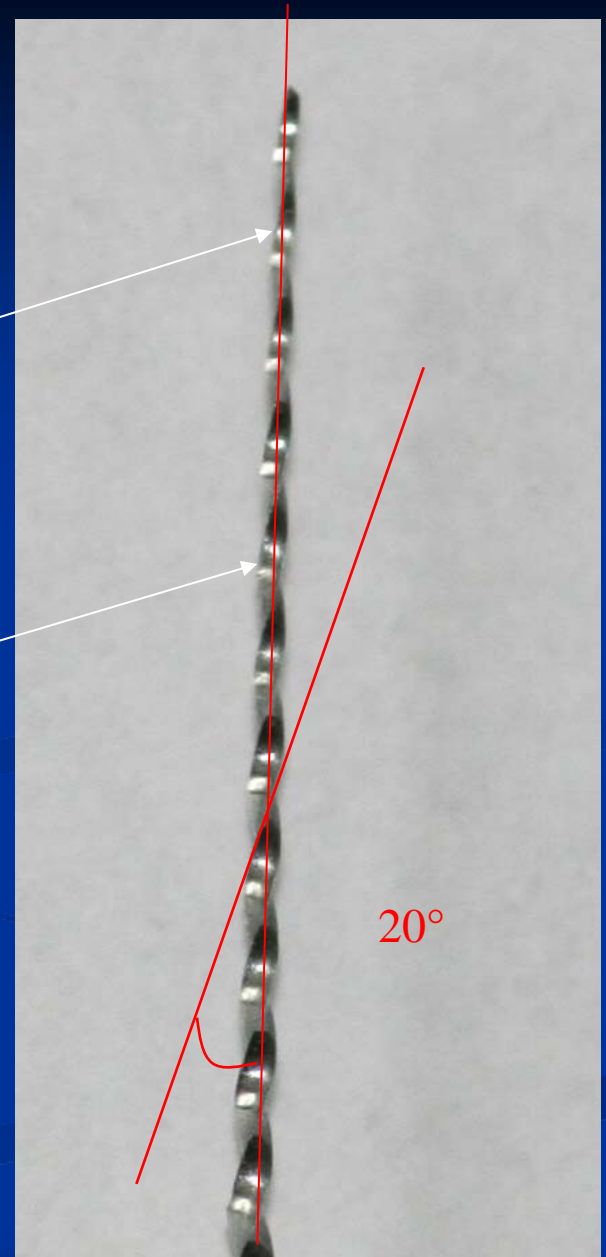


# Reamer

Cutting edges

Space for chips

*Clockwise rotation*





# Files

1. K-file
2. K-flexofile, flexicut, flex-R - file
3. K-flex
4. H-file, S-file

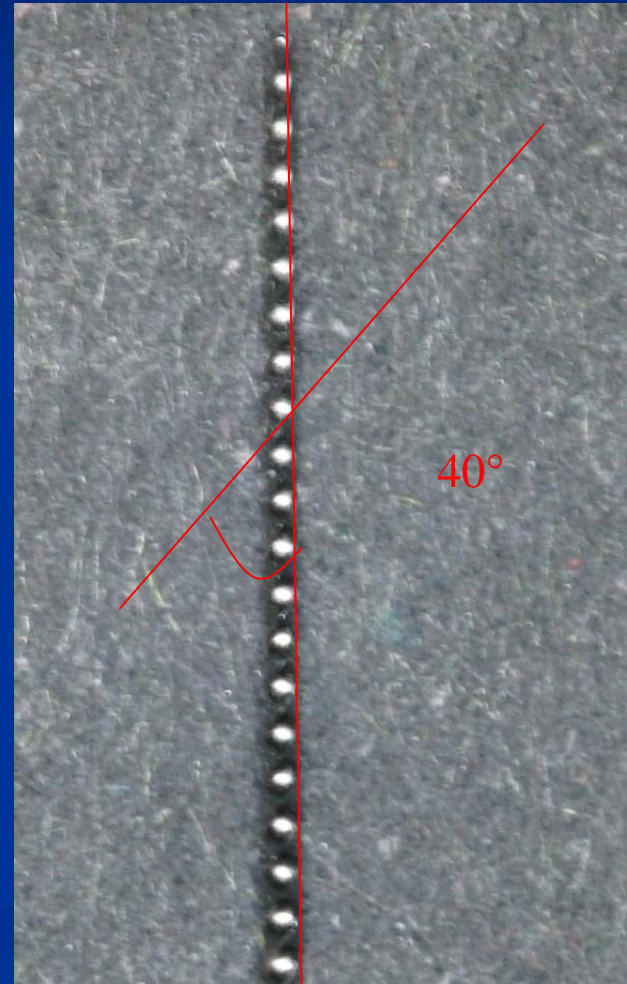
# K file



# K-file

## *Filing and (or) rotation*

*Straight canals 45° - 90°*

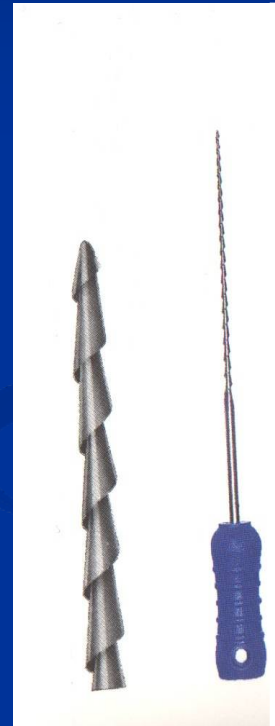
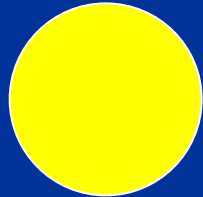


# K-file x reamer



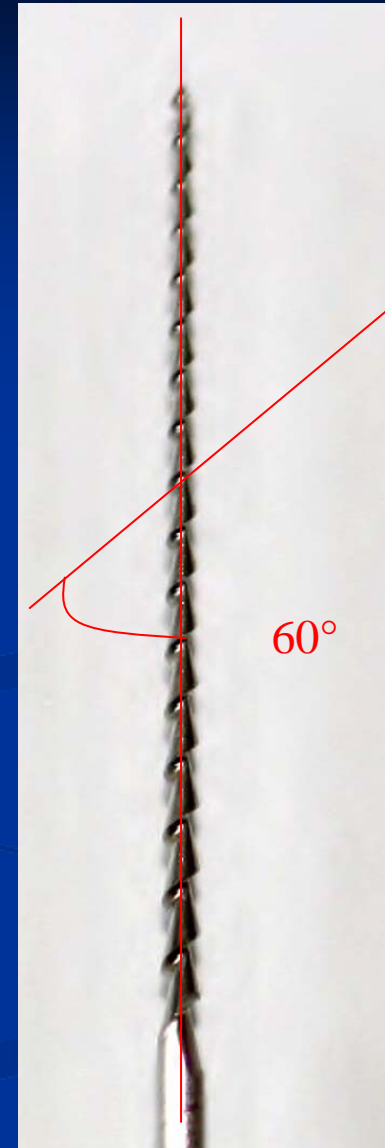
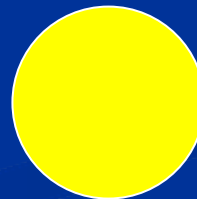
# H-file

= Hedström file



# H- file

Filing only!!!!



# ISO norma

- Diameter
- Length of the cutting part
- Taper



**06 pink**

**08 gray**

**10 purple**

**15 white**

**20 yellow**

**25 red**

**30 blue**

**35 green**

**40 black**

**45 white**

**50 yellow**

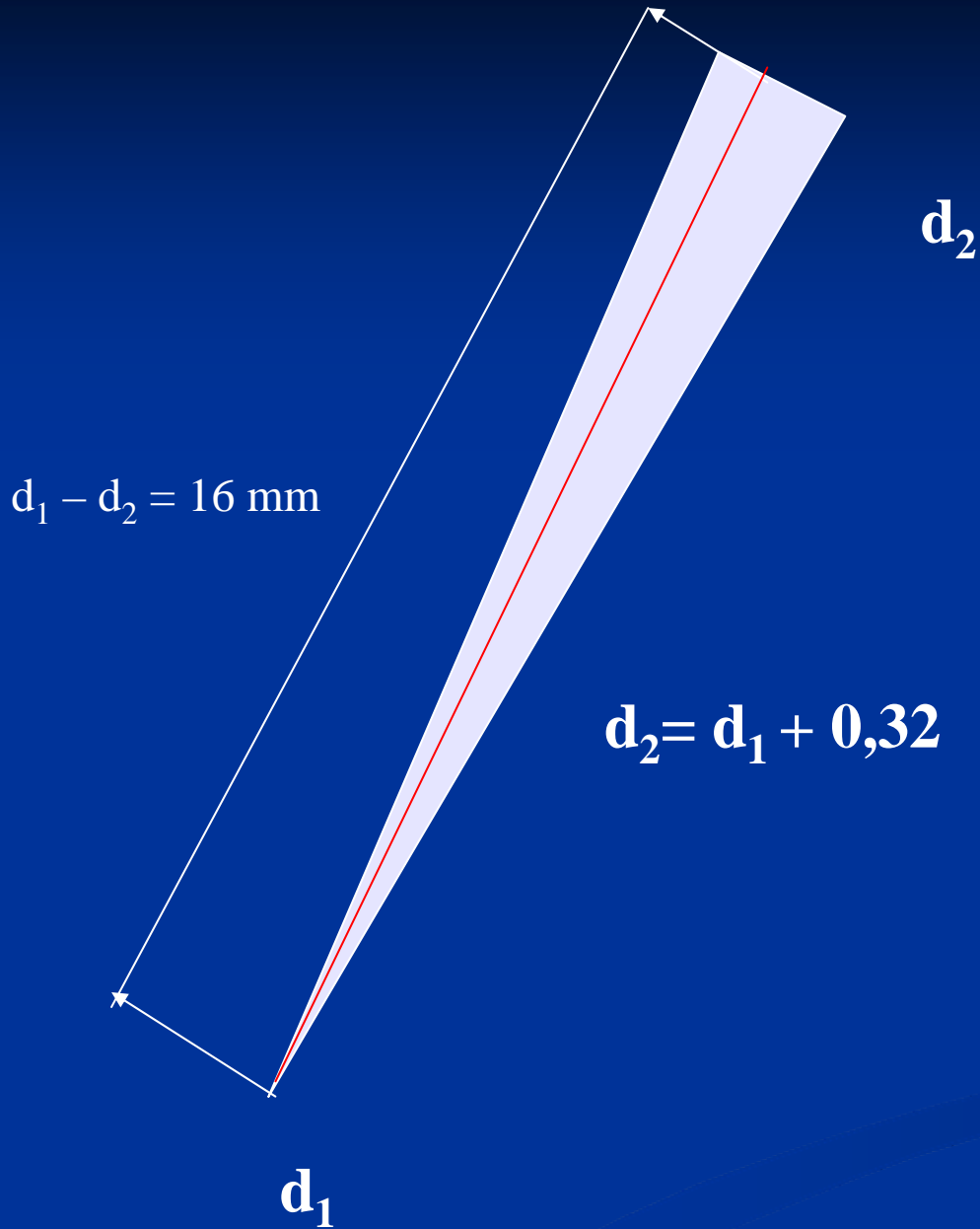
**55 red**

**60 blue**

**70 green**

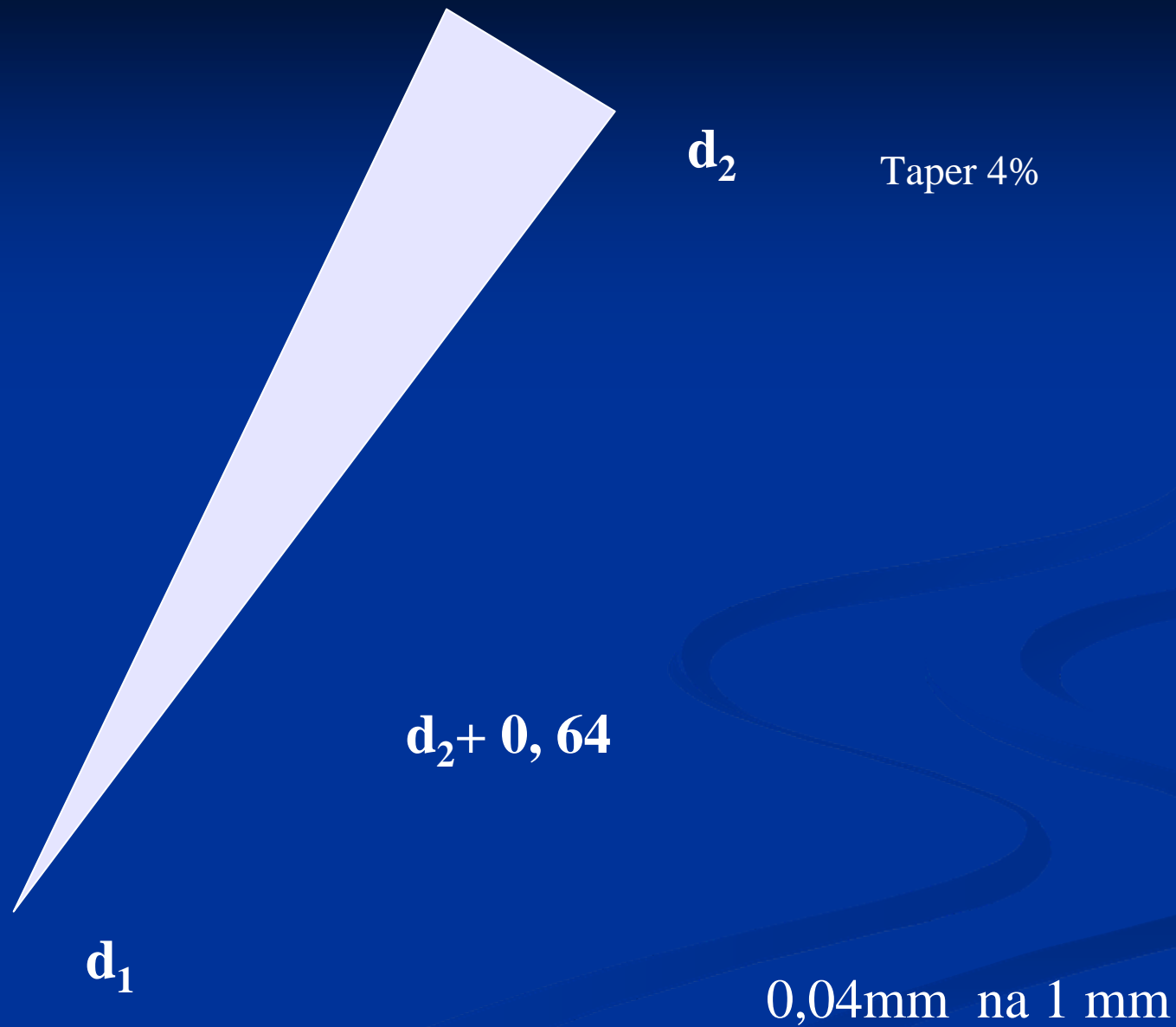
**80 black**





Taper 2%

0,02 mm na 1mm



Taper 4%

$d_2$

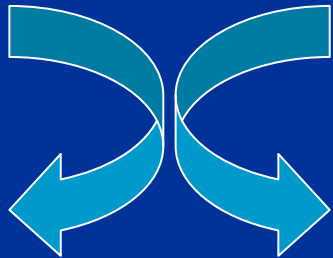
$$d_2 = d_1 + 0,96$$

$d_1$

0,06mm na 1 mm

# Instrumentation

- Rotace tam a zpět – 45°

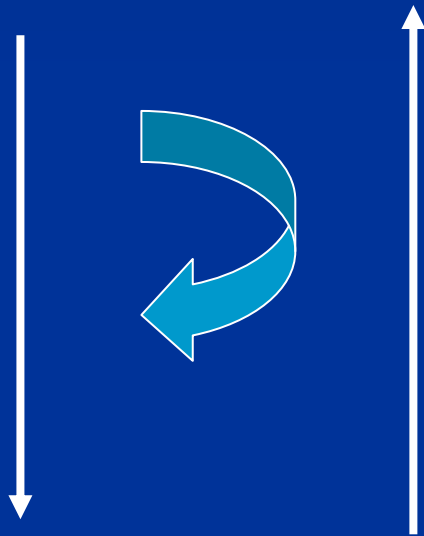


K – reamer

K- file

# Instrumentation

- Rotace 45° tlak a vytažení



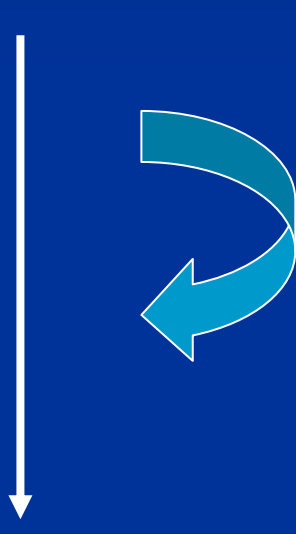
K – reamer

K- file

*Riziko intrakanálového schůdku  
Zip a elbow efektu  
Via falsa*

# Instrumentation

## ■ Pilování



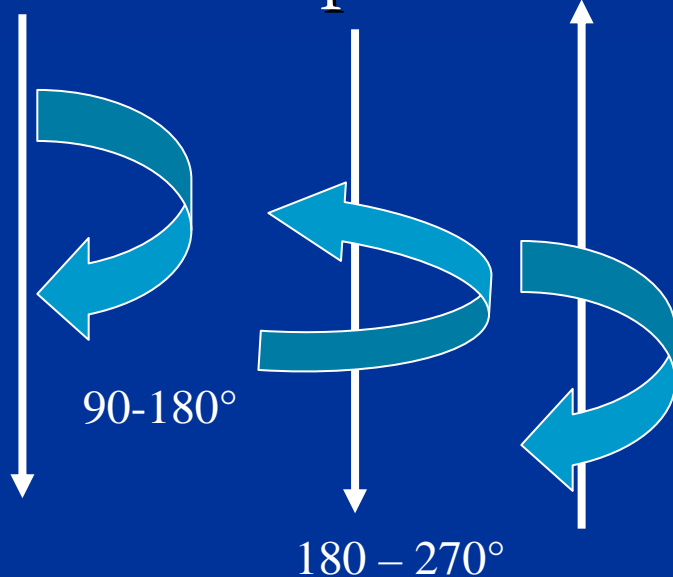
H- file

K – file

*Riziko přetlačení obsahu*  
*Riziko vzniku zátky*

# Instrumentation

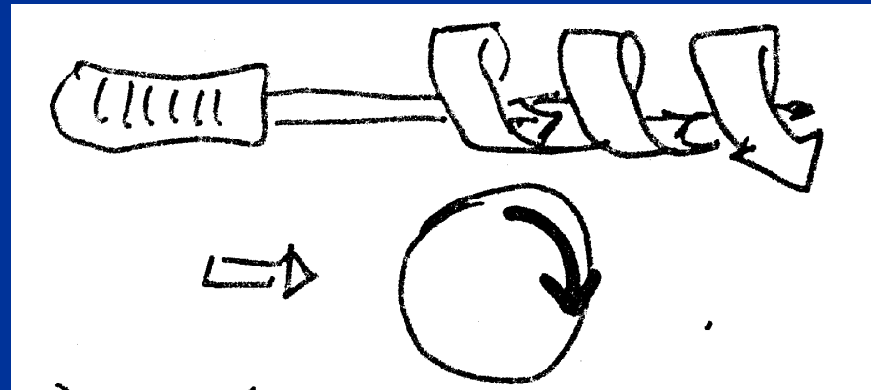
- Ttechnika balancované síly – nástroj o 1 číslo větší než apikální velikost



K- flexofile

K – file (?)

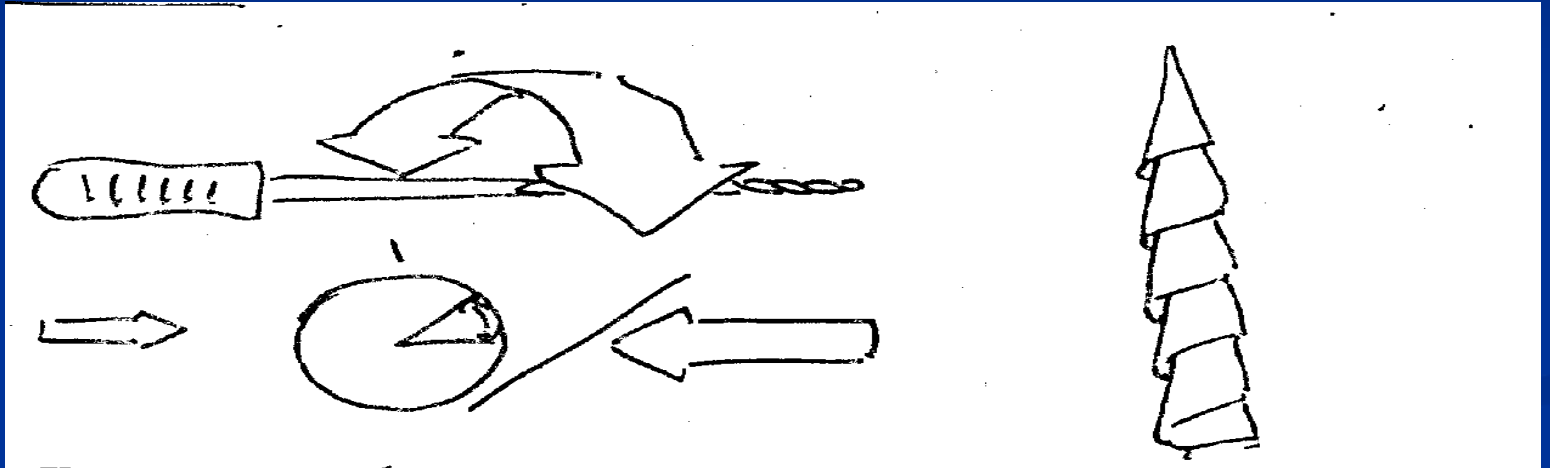
# Reaming



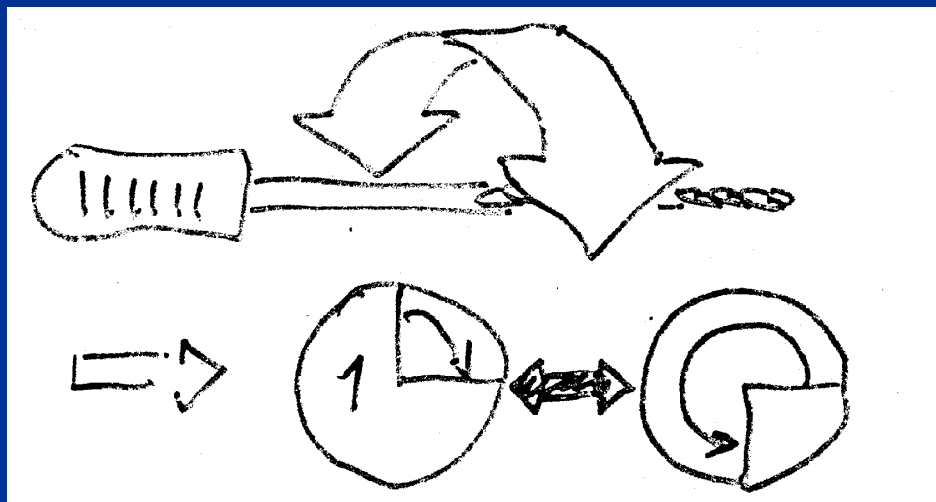
Simple clockwise rotation



# Filing



# Balance forced technique



# Circumferential filing

