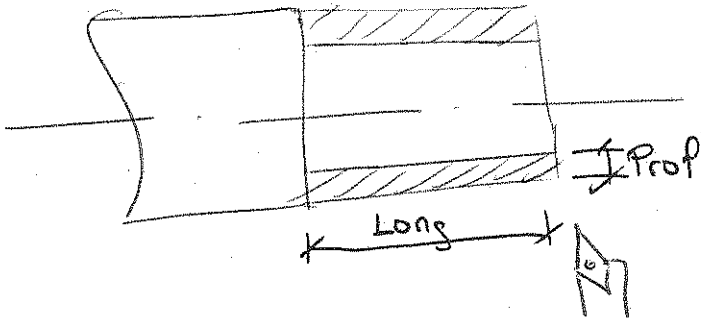


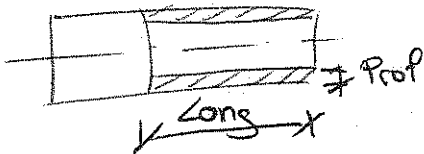
1) Cilindrado

$\emptyset = \text{FRONAL}$



* Ejemplo:
 $\emptyset 40 \times 104$

Cilindrado $\emptyset 38 \times 60 \text{ mm}$



$\emptyset 38$

Prof $\rightarrow 40 - 38 \rightarrow \emptyset 2 \text{ mm}$

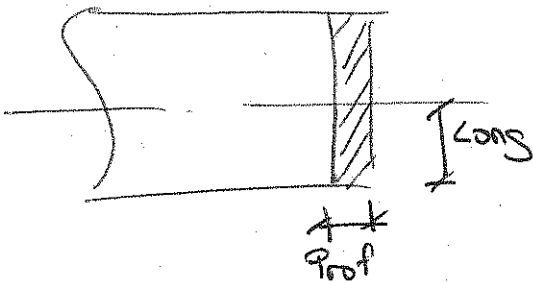
Pero $R = 1 \text{ mm}$

| Prof = 1 mm |

| Long = 60 mm |

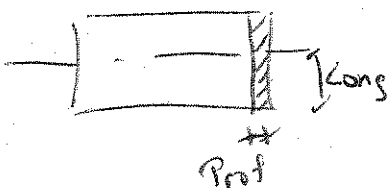
2) Refrentado

$\emptyset \text{ FINAL}$



* Ejemplo
 $\emptyset 40 \times 104$

Refrutado 2 mm



$\emptyset 40$

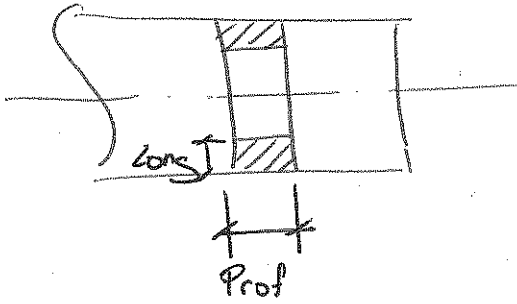
Prof = 2 mm

Long = $\emptyset 40 / 2$

| Long = 20 mm |

3) Ranurado

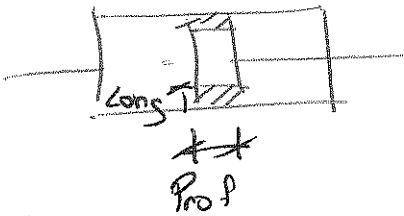
\varnothing FINAL



* Ejemplo

$\varnothing 40 \times 104$

Ranurado $\varnothing 33 \times 3 \text{ mm}$



$\varnothing 33$

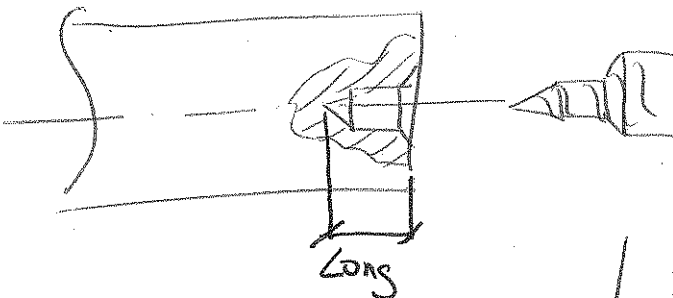
Prof = 3 mm

Long = $40 - 33 \rightarrow \varnothing 7 \text{ mm}$

R = 3.5 mm

Long = 35 mm

4) Punteado

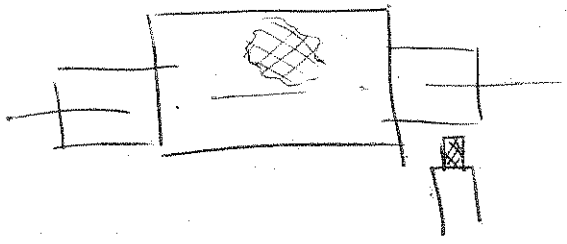


\varnothing FINAL = 4 mm

Long = 4 mm

Prof = 4 mm

5) MOLETEADO



$\phi \rightarrow$ FINAL

Prof $\rightarrow P/4$

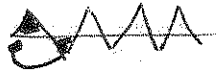
Long \rightarrow Como en el cilindrado

$N^{\circ} \rightarrow 4$

Ejemplo

Moleteado $\phi 40 \rightarrow$ Paso 1mm y 38mm de largo

• En el desbaste $\phi 39.5$ mm, porque el paso es 1mm



Traslada el material

$\left. \begin{array}{l} \phi = 40 \text{ mm} \\ \text{Prof} = 0.25 \\ N^{\circ} = 4 \\ \text{Long} = 38 \text{ mm} \end{array} \right\}$

6) ROSCADO

$$\text{Prof} = 0.613 \times \text{PASO}$$

$$N^{\circ} = 4.5 \times \text{PASO}$$

$\phi \rightarrow$ FINAL

Long \rightarrow Igual que el cilindrado

Ejemplo

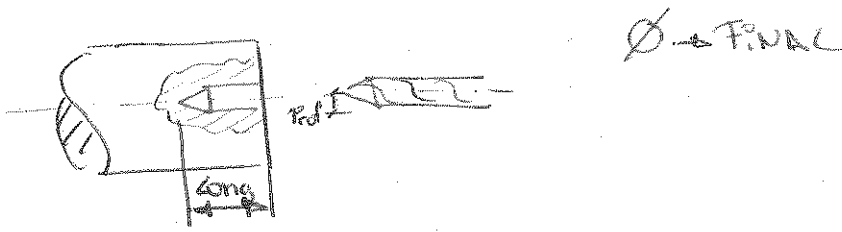
Roscado M20 x 2.5 mm

$$\text{Prof} = 0.613 \times 2.5 =$$

$$N^{\circ} = 4.5 \times 2.5 =$$

$\left. \begin{array}{l} \phi = 20 \\ \text{Prof} = \\ N^{\circ} = \\ \text{Long} = 20 \text{ mm} \end{array} \right\}$

7) TALADRO - AGUSERO



Ejemplo

Taladradro $\phi 10 \times 20 \text{ mm}$

$N^\circ = 1$

Prof = 5 mm

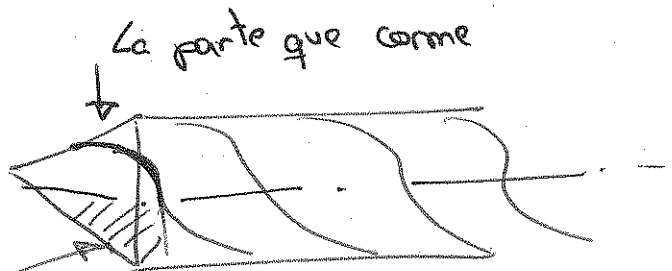
Long = 20 mm

$\phi = 10 \text{ mm}$

¿Por que?

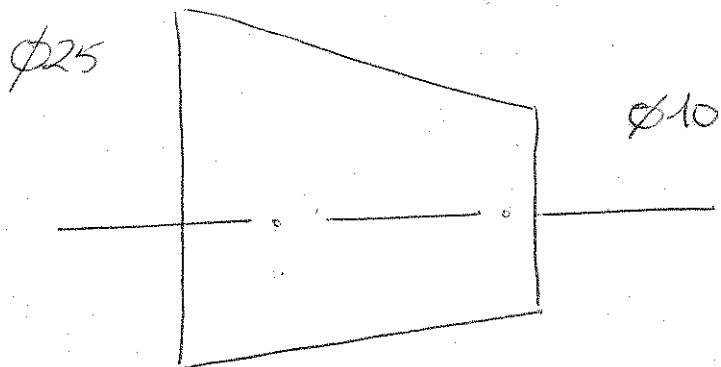
BROCA →

Parte que se
utilize para sacar
la viruta.



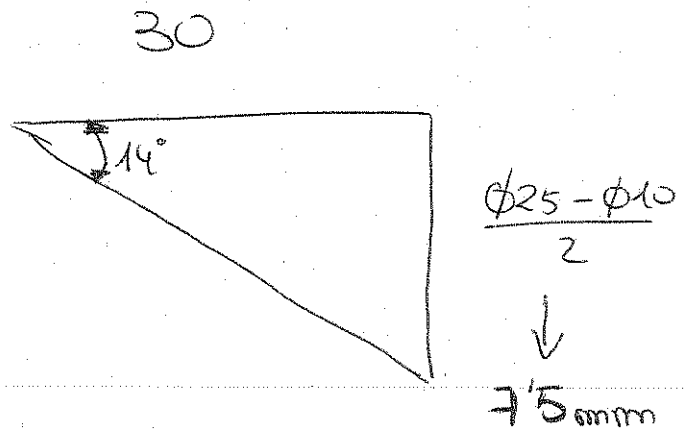
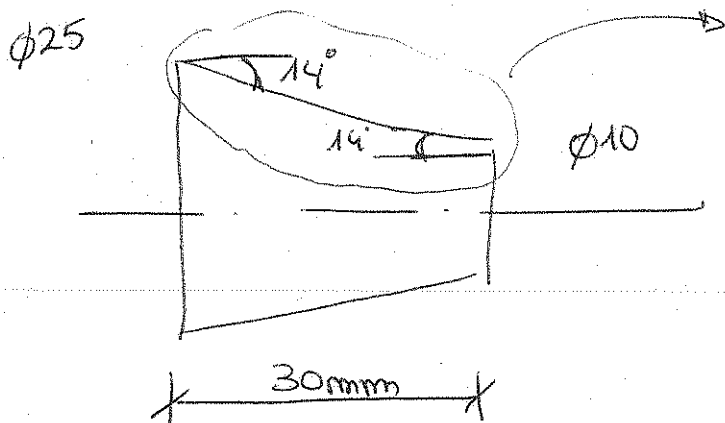
Los dientes estan en espiral
en toda la broca.

8) CONO

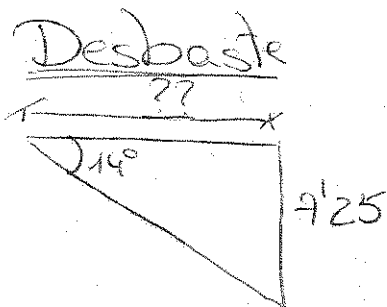


N° = Segun pasadas
 ϕ = Intermedio
 Prof = Segun pasadas
 Long = Suma de los tangentes

Ejemplo:



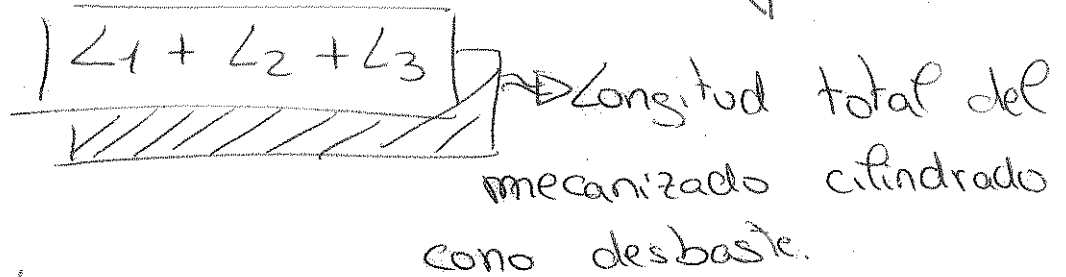
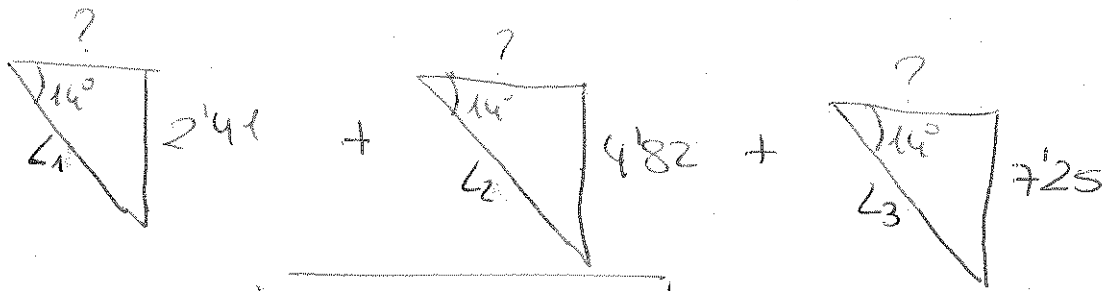
} $7'25$ en el desbaste
 } $0'25$ en el acabado



* Pasada maxima 3, entonces, en este caso tenemos que dar 3 pasadas.

$N^\circ = 3$
 $\text{Prof} = 7'25 / 3 = 2'41$
 $\text{Long} = ?$
 $\phi = \text{Intermedio}$

• Long en el desbaste

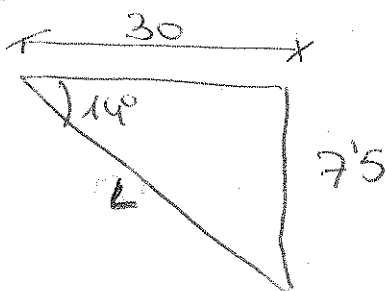


$$L_1 = \frac{2'41}{\sin 14^\circ} \approx$$

$$L_2 = \frac{4'82}{\sin 14^\circ} \approx$$

$$L_3 = \frac{7'25}{\sin 14^\circ} \approx$$

Acabado



* Al ser acabado la pasada es de 0'5 en el diametro y solo una pasada

Dos maneras de calcular

$$L = \frac{7'5}{\sin 14^\circ}$$

$$L = \sqrt{7'5^2 + 30^2}$$

ϕ = Intermedio

$$N^\circ = 1$$

$$Prof = 0'25$$

$$Long = L$$