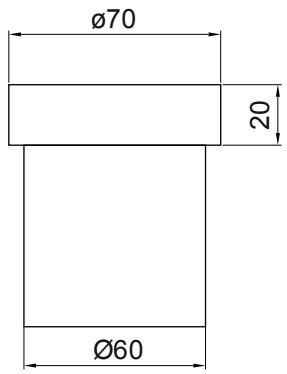
FORMULES FOR BROACHING

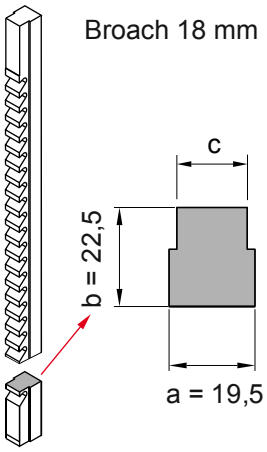
Picture 1

Bushing ø60



Picture 2

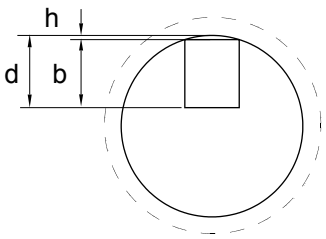
Broach 18 mm



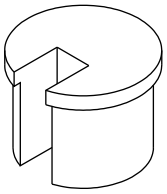
Picture 3

Height to mill

d = b + h



Finished part



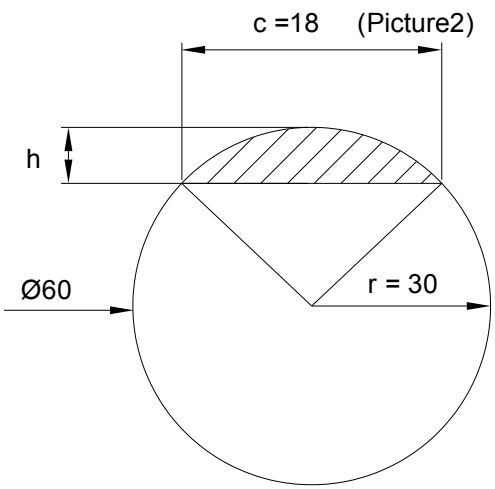
1. Mechanize bushing (Picture 1)

2. Take the measurement of the tooth bottom of the brush. In this case the 18mm broach. (Picture 2)

3. Next step: to reduce the bushing in the milling center. Milling height “d”will be obtained from summing up the constante “h” and “b” (Picture 3)

4. The milling cutter to use in this case is the constante “a”,that is to say, 19,5 mm (Picture 2)

Height “h” will be obtained from applying the following formula



$$h = r - \tfrac{1}{2}\sqrt{4r^2 - c^2}$$

$$h = 30 - \tfrac{1}{2}\sqrt{4x30^2 - 18^2}$$

$$h = 30 - \tfrac{1}{2}\sqrt{3600 - 324}$$

$$h = 30 - 0{,}5\sqrt{3276} = 57{,}236$$

$$h = 0{,}5 \times 57{,}236 = 28{,}618$$

$$h = 30 - 28{,}618 = 1{,}381$$

$$\boxed{h = 1{,}38}$$

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