DIÂMETROS DE FURO PARA ROSCAR
RECOMMENDED DRILL HOLE SIZE FOR THREADING

Diâmetro do Furo Drill Hole Size

O diâmetro do furo afeta substancialmente as operações de rosqueamento.
The drill hole diameter substantially affects tapping operations.

Fórmula Formula

$$\text{Porcentagem do engate da rosca (Percentage of thread engagement)} = \frac{\text{(diâmetro externo da rosca) – (diâm. do furo)} \atop \text{(basic major dia. of external thread) – (drill hole diameter)}}{\text{2 x (altura básica do filete)} \atop \text{2 x (basic height of thread engagement)}} \times 100$$

Devido o D1 da rosca interna ser igual ao diâmetro do furo, o diâmetro da broca é calculado conforme a seguinte fórmula (para rosca Métrica e Unificada):
Because the minor diameter of the internal thread is equal to the drill hole diameter, the drill diameter is calculated using the following formula (Metric and Unified Thread).

Fórmula Formula

$$\text{Diâmetro do furo (Drill hole diameter)} = d - 2 \times (0{,}541266P) \times \left(\frac{\text{Porcentagem do engate da rosca (Percentage of thread engagement)}}{100} \right)$$

d: Diâmetro externo da rosca (mm) d: Major Diameter of external thread (mm)
P: Passo (mm) P: Pitch (mm)

Figura 1 - Porcentagem do engate da rosca.
  Quando a rosca externa está igual a altura básica.

Rosca Interna

Rosca Externa
$a = 1/2 \times (D - D_1)$
h = altura básica da rosca
Porcentagem do engate da rosca = a/h x 100 (%)

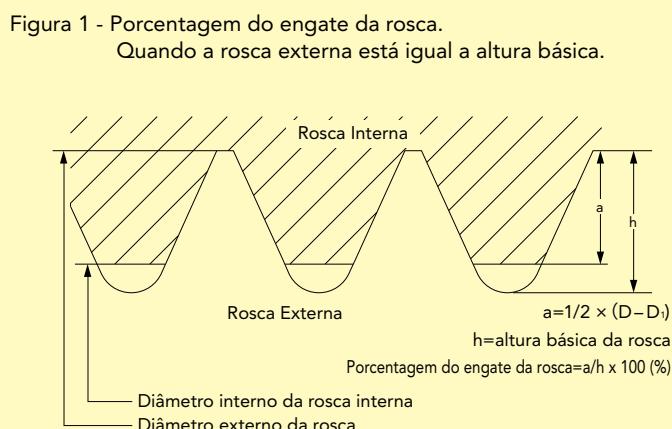Diâmetro interno da rosca interna
Diâmetro externo da rosca

Figure 1 - Percentage of thread engagement
  When external thread profile is equal to basic profile

Internal thread

External thread
$a = 1/2 \times (D - D_1)$
h = basic height of external thread
Percentage of thread engagement = a/h x 100 (%)

Minor diameter of internal thread = Drill hole diameter
Major diameter of external thread