

Abstract

A small-diameter drill for deep hole drilling is provided which is capable of inhibiting the cutting chips from getting bitten and producing a straightness for a drilled hole, thus suitable for drilling a hole having a depth (L) which is 15 or more times the diameter (D) of a drilled hole. The small-diameter drill 1 has a diameter 2 which is 1 mm or less and a drill section 5 including cutting edge(s) 3 and flute(s) 4. The length 11 of the flute 4 is at least 5 times and at most 10 times the drill diameter 2. The diameter of the drill section 5, after being reduced in diameter from the cutting edge 3 toward the rear of the drill section 5, is expanded in diameter so that the outer diameter at the end of the flute 4 becomes at least 0.9 times and at most 0.98 times the drill diameter 2. An expanded-diameter portion 10 is provided between the drill section 5 and a neck section 6 connected to a shank 7 and is expanded in diameter from the outer diameter at the end 9 of the flute 4 up to 1 or less times the drill diameter 2. The diameter of the neck section 6 is smaller than the drill diameter 2, and the length 12 of the neck section 6 is 10 or more times the drill diameter 2.