

5 ADVANTAGES OF USING TREPANNING



Compared with deep hole drilling or boring, [trepanning tools](#) offer several important advantages. Whether you are working on a [large-scale industrial project](#) or a precision machining application, trepanning tools can make a significant difference in terms of efficiency, cost savings, and material utilisation.

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Whilst applications can sometimes be limited due to the restrictions of tooling and larger tolerances, when trepanning is a viable option, the benefits can be tremendous.

In this article, we'll explore five key advantages of using trepanning tools for producing large bores.

1. Reduced Effort

One of the primary advantages of using trepanning tools is that they require less energy compared to other types of drilling methods. Instead of removing the entire core by chipping it away, trepanning tools cut out a solid core which takes less time and energy to achieve the desired hole size, particularly when drilling hard materials. This results in reduced tool wear and enhanced productivity.

2. Cost-Efficiency Savings

Trepanning tools offer multiple cost-saving benefits. Firstly, trepanning reduces material waste by cutting out a core or slug, leaving behind a usable core that can be assigned to other projects or recycled at a higher value than chipped swarf. Also, trepanning reduces the usage of boring heads, tips and tooling since the tool only removes the required cylindrical portion and, therefore, is subjected to less wear. This translates into savings in terms of tooling costs and reduces the frequency of tool replacements.

3. Improved Energy Efficiency And Sustainability

Deep hole drilling and boring are energy-intensive processes, particularly when the inner core of the drilled hole is converted to swarf. However, by using trepanning tools, your business can significantly reduce its energy costs because cutting out a solid cylinder is a more efficient method. Improved energy efficiency reduces operational costs and contributes to a more sustainable manufacturing process.

4. Tool Usage Optimisation

Trepanning tools allow for the most efficient use of cutting tools. Unlike conventional drilling methods, which results in a large amount of tool wear and degradation, trepanning tools require fewer tool changes and replacements. Also, by recycling trepanned slugs and optimising tool usage, you can extend the lifespan of your cutting tools, reduce tooling costs, and minimise the downtime that is required for tool changes.

5. Material Utilisation

Trepanning machining enables more efficient material utilisation. By cutting out a cylindrical core, trepanning tools leave behind reusable raw material that can be used in other applications. This reduces material waste and maximises the utilisation of raw materials, resulting in cost savings. However, please note that by carrying out the trepanning process, material properties can be altered and therefore, the original material certificate must not be used for the recycled material to be used in another application.

Contact Hone-All For A Free, No-Obligation Quotation

We have a wide range of [deep hole drilling](#), deep hole boring and [trepanning tools and equipment](#) and will always advise the most cost-effective solution for our customers and their projects. If you're unsure or would like to discuss the suitability of trepanning for your project, please call us on 01525 370666 or [send us a message](#) and our team will be in touch.

The Guide To Deep Hole Drilling, Boring & Honing Costs:
Understanding The Factors That Affect Your Quotation & Overall Quality

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