Sandvik GT60 drilling tool system
Heavy-duty drilling tool system for tophammer operations
Sandvik GT60 heavy-duty drilling tool system

To keep pace with developments in modern bench-drilling, Sandvik has developed a heavy-duty Ø 60 mm drilling-tool system for blast holes ranging from Ø 92 to 152 mm (3 5/8 to 6”). With its high hole quality it has quickly become a new industry standard in service on hundreds of rigs worldwide.

Introducing the GT60 thread design
Called Sandvik GT60, the drill string components feature an entirely new thread design. Compared with T51 rods, the 40% larger rod cross-section of the GT60 rods provides 65% higher bending stiffness and withstands the impact-waves from the piston much longer. So much so that both drill-rod and shank adapter life can be doubled. As an extra bonus, the more rigid drill string permits optimum drilling patterns and higher rates of penetration.

High flexibility
The Sandvik GT60 system makes the use of a drill rig more flexible. In order to raise output, quarries want to drill the largest holes possible from the productivity point of view. Although the average hole size is still around 3.5 inches, more and more sites want to drill five and six-inch holes. With the Sandvik GT60 system, you can drill six-inch holes, with the added advantage of also being able to drill much smaller holes with the same rig.

More rational drilling tool inventories
Drill and blast contractors have been quick to see the economic benefits of the GT60’s high drilling precision, high productivity and system versatility. The machine and tool inventories can be made more rational – the same rig can be used to drill 92, 96, 102, 115, 127, 140 and 152 mm blast holes. And the system copes comfortably with bench heights up to 30 meters for holes up to 127 mm and up to 20 meters for 140 mm holes without any guiding extras. However, for holes larger than Ø 127 mm (4”), high benches and difficult rock conditions, we recommend the new Sandvik GT60 Pilot Tube as the first rod up front to really ensure hole straightness and efficient flushing.
The Sandvik GT60 drilling tool system is optimized for the transfer of impact power from Tamrock HL1000 and HL1500 rock drills. It is compatible with the typical piston size and power of other hammers of that magnitude. The new thread design and tailored drill steel dimensions – perfectly matched to transform impact power into very efficient rock-breaking performance – also contribute to longer service life for the entire drilling system.
The GT60 shank adapter is a high-precision rock drilling component.

Original Sandvik steel throughout from our own plants.

The GT60 rods feature a 40% larger cross-section compared with T51 rods.

For holes larger than Ø 127 mm and high benches, we recommend the GT60 Pilot Tube as the first rod up front to secure hole straightness and efficient flush-
As straight as DTH
– twice as fast

Drill hole quality can be improved to equal that of DTH-hammers, with twice the penetration rate. Yet the relatively low weight of the GT60 rod makes the drill string ideally suitable for automatic rod handling systems. The new male and female (MF) threads minimize energy losses and simplify the coupling sequence.

The Sandvik GT60 system also includes Sandvik CAPP button bits to comply with all kinds of rock formations and drilling site conditions. The GT60 enables full utilization of the potential of modern drilling equipment. The result: faster penetration, very good hole straightness, hole quality and overall cost-savings.

**Perfect matching with your hammer**
To withstand the impact power and efficiently transmit it from the rock drill piston, the shank adapter must be a high-precision rock drilling component. An inferior adapter can easily break and cause severe damage to the rock drill. Consequently, the design and dimensioning of a Sandvik GT60 shank adapter is optimized to match the extreme loads from the piston and efficiently transmit the energy through the drill string. The shank adapter must also meet the specified close tolerances throughout its service life.

**Original Sandvik steel throughout**
The steel used in the GT60 rods is produced in one of the world’s most advanced continuous casting plants. The steel is processed to blanks and rolled to hollow bar steel in the only rolling mill in the world that exclusively rolls drill steel. Almost 90 years of experience of rolling hollow drill steel has made us unique in terms of tolerances and uniformity of steel properties.

**Tailored for sophisticated monitoring**
In blast hole drilling, burden and spacing are frequently reduced to offset the negative effects of hole deviation. In practice this means a greater number of drilled holes, additional consumption of rock drilling tools and explosives, bad fragmentation and more work. By fully utilizing monitoring systems on the drill rig, the Sandvik GT60 system breathes new productivity into drilling operations.

Modern advanced heavy-duty drill rigs on the market are equipped with electro-hydraulic monitoring systems (e.g. Tamrock Rock Pilot). These systems automatically adjust the drilling power from the hammer and the drilling feed to match perfectly any variations in rock formations, thus reducing drilling tool costs. In addition to facilitating the operator, it contributes to produce straighter holes than ever before.

**Stiffness index**

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<th>GT60</th>
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Compared with T51 rods, the GT60 rods feature 65% higher bending stiffness, providing straighter holes.

**Torsion resistance index**

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Compared with 51 mm systems, the larger cross-section of the GT60 rods provides 52% higher torsion resistance, permitting smoother rotation.

**Flushing area index**

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Compared with 70 mm steels and T51 mm systems, the Sandvik GT60 system has a 15% and 10% bigger flushing area, respectively, providing more efficient flushing.
A perfect match with Sandvik CAPP bits

Sandvik’s R&D engineers are constantly engaged in upgrading the components in our tool systems. With our unique in-house manufacturing facilities for the steel, and for machining it and tailoring it to its application, Sandvik has all the resources needed to respond to market conditions and adapt products to provide new, profitable solutions for rock drilling professionals.

Sandvik CAPP bits

Our Sandvik GT60 commitment encompasses the supply of premium quality CAPP bench-drilling bits. The Sandvik CAPP-line of GT60 bits has been created in our unique engineering, manufacturing and delivery system – CAPP, Computer Aided Product Processing. This has enabled us to tailor the characteristics of the bits to match almost any drilling conditions.

The right bit, on time, for the right application

Our local sales and service staff will accurately guide you to the right CAPP GT60 bits. Sandvik’s world-wide distribution network will then continuously provide you with scheduled in-time deliveries.

Outstanding performance

Sandvik GT60 bits for benchdrilling are available in hole diameters from Ø 92 to 152 mm in various designs and cemented carbide grades. Regardless of rock formation, there is a Sandvik GT60 bit to perfectly match the application.

Drilling efficiency simulation.
Tamrock HL 1500, 3 rods, Ø 127 mm bits.

The GT60 system is the most efficient tool system in the majority of rock conditions.

Rock Penetration Resistance (Rock hardness)
Sandvik GT60, the right drilling tool dimension for heavy-duty drilling.
Sandvik GT60
drilling tool system

The Ø 60 mm rod cross-section is optimized for high energy transfer of impact power in tophammer drilling of Ø 92 to 152 mm holes. Compared with 51 mm rods, the 40% larger cross-section and 65% higher bending stiffness permit faster penetration rates and straighter holes. (92 mm drilling is only recommended in non-abrasive rock).

Sandvik GT60 is perfectly suitable for automatic rod handling systems. Male and female (MF) threads minimize energy losses and simplify handling.

The large flushing hole provides superior removal of cuttings and improves drilling performance. The exact centering of the hole during manufacture ensures uniform steel walls and uniform product performance.

The steel in Sandvik GT60 extension rods is produced in one of the world’s most advanced continuous casting plants. Almost 90 years of experience of rolling hollow bar steel have made Sandvik unique in being able to produce steel with close tolerances and excellent material properties.

The Sandvik GT60 system includes Sandvik CAPP button bits to comply with all kinds of rock formations and drilling site conditions.

The Sandvik GT60 system provides double the penetration rate at half the energy consumed compared with DTH drilling.

The Sandvik GT60 system covers a wider hole range than any other similar system – Ø 92 to 152 mm.

Sandvik GT60 high precision shank adapters are available for Tamrock HL1000/1500 and equal hammers.

For holes larger than Ø 127 mm and high benches we recommend the GT60 Pilot Tube as the first rod up front to secure hole straightness and efficient flushing.

A wide range of Sandvik grinding equipment is available to ensure your Sandvik CAPP bits are always in perfect shape.