

SANDVIK

DR412i

DEPENDABILITY DEFINED





A HISTORY OF INNOVATION 1862 – PRESENT

Only one thing can take a company from a small town in Sweden to a worldwide operation. Innovation. With it, we've created a legacy of problem-solving with an unwavering commitment to quality.

That means every Sandvik product is a product you can depend on.



DO MORE. USE LESS. THE DR412i.

The Sandvik DR412i blasthole drill is equipped with our patented Compressor Management System (CMS) and designed to improve conservation and deliver dependable penetration in the world's harshest mining conditions. Constructed for rotary or down-the-hole drilling, the DR412i is automation-ready and built to guarantee reliability while bringing a new level of safety and productivity to your operation. Three key components led the innovative design efforts that brought the DR412i to life.

SAFETY

Human touches in a mechanical world.

Personnel safety is always a central element to any of our products. The DR412i is no different, with a number of features working to protect operators and maintainers through precipitous jobs and rough conditions. Space, accessibility, and visibility were key factors to consider in designing the operator cab, ensuring easy access to routine maintenance ports. As part of our holistic approach, we implement design elements that serve productivity while adding enhanced safety aspects. We utilize worldwide safety standards and guidelines during our design process, set forth by the Mining Design Guidelines (MDG) and Earth Moving Equipment Safety Round Table (EMESRT).

PRODUCTIVITY

More power from the comfort of the cab.

Key features of the DR412i work hand-in-hand to increase productivity. An advanced hydraulic system allows for timely preventative maintenance. Rigid undercarriage construction increases stability to allow for more drive power. Power delivery is optimized for efficiency through the inclusion of our Compressor Management System. Automated In-Cab control features like pipe handling cut down on maintenance time frames and increase availability.

VALUE

Cutting costs through increased efficiency.

The DR412i is equipped with cost-cutting tools that maintain the same level of quality customers expect from our products. Sandvik equipment is built to last, ensuring durability and availability through the harshest drilling environments in the world. The Compressor Management System is our most recent innovation and works to save thousands of gallons of fuel per year and will ultimately reduce your overall carbon footprint.



KEY PRODUCT FEATURES

- 01** **DRILLING CAPABILITY**
Designed to perform to your specifications.
- 216 to 311 millimeter (8.5 to 12.25 inch) Diameter Blastholes
 - Single-pass Capacity of 18 meters (59 feet)
 - Multi-pass Capacity of 75 meters (246 feet)

- 02** **AUTOMATION**
Increasing productivity through automated features.
- Hydraulic Auto-Levelling
 - Change Drill Bit without Operator Contact*

- 03** **OPERATOR ENVIRONMENT**
Ensuring comfort and safety are top priority.
- Full Visibility of Drilling Operation
 - Ergonomically-Designed Shock Mounted Cab
 - Function Lockout Fail-safe Programming
 - Touchscreens for Ease of Operation

- 04** **ACCESSIBILITY & MAINTENANCE**
Improving serviceability through ease-of-access.
- 360-degree Catwalk System for Full Accessibility
 - Hydraulic Actuated Main-Access Stairway*
 - In-Cab Maintenance Features
 - Open Design with Walkways for Safe, Easy Maintenance

- 05** **CMS**
Our solution to the inherent inefficiencies of blasthole drilling.
- Isolates Compressor Reducing Engine Load
 - Reduces Wear and Tear on Engine and Compressor
 - Reduces Fuel Consumption
 - Extends Maintenance Intervals
 - Reduces Greenhouse Gas Emissions

- 06** **CUSTOMIZATION**
Built with a wide range of needs in mind.
- Custom builds available for conditions ranging from extreme cold to intense heat.

**Denotes optional feature*

DR412i



01

02

05

03

04

06



SCALEABLE AUTOMATION, THE RIGHT TECHNOLOGY FOR TODAY AND TOMORROW

AUTOMATION SYSTEM LEVELS

Remote Controlled: Operator is in line of sight and controls equipment using a remote device. All functions are controlled by the operator.

Tele-Remote Operation: Operator controls equipment at a remote location with the use of cameras, sensors, software and vehicle telemetry.

Fully Autonomous: Equipment is controlled with the help of robots and only require human supervision (to handle exceptions) can be single/multi-unit or fleet based.

VALUE DRIVERS

Increased production: automated functions are efficient, less wear & tear, higher availability.

Reduced cost: less work on bench preparation.

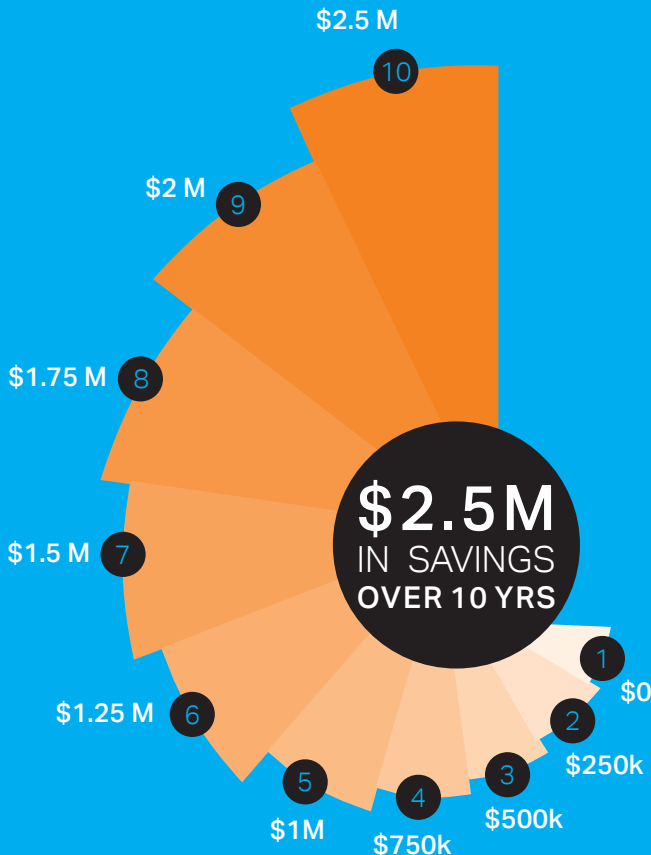
Enhanced safety: fewer people on bench.

Improved drilling quality: improved fragmentation.

INCORPORATING OUR REVOLUTIONARY CMS SYSTEM TO BOOST PRODUCTIVITY.

Sandvik's patented CMS solves the inherent inefficiencies of rotary blasthole drills that have a direct connection between the engine and compressor. Isolating the compressor reduces the load on the engine by eliminating the need to maintain pressure when the machine is not drilling.

IN ADDITION TO REDUCING THE CARBON FOOTPRINT OF MINES AND DRILL SITES, THE CMS MAKES A TANGIBLE IMPACT ON PRODUCTIVITY.



REDUCED CARBON EMISSIONS by 300t



INCREASED ENGINE AND COMPRESSOR LIFE

20-35% LESS FUEL CONSUMPTION



MAINTENANCE intervals

EXTENDED



MACHINE SPECIFICATIONS

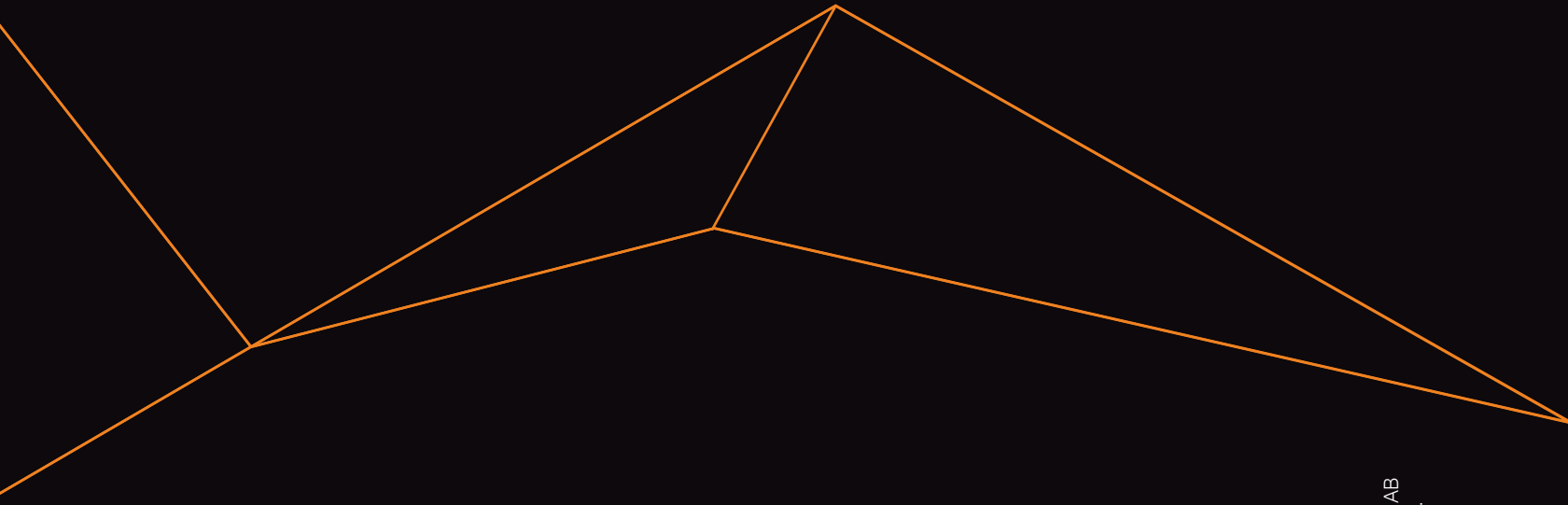
DR412i

	METRIC	IMPERIAL
Hole diameter	216 - 311 mm	8 ½ - 12 ¼ in
Maximum hole depth - Multi-pass	75 m	246 ft
Maximum hole depth - Single-pass	31 m	102 ft
First pass capability - Multi-pass	12.3 m	40.5 ft
First pass capability - Single-pass	18 m	59 ft
FEED		
Maximum pulldown	356 kN	80,000 lbf
Maximum bit load	400 kN	90,000 lbf
Feed rate up/down - Single-pass	0 - 43.9 m/min	0 - 144 fpm
Feed rate up - Multi-pass	0 - 43.9 m/min	0 - 144 fpm
Feed rate down - Multi-pass	0 - 41.2 m/min	0 - 135 fpm
ENGINE, CAT C27		
Power	652	875
RPM	-	1800
High pressure	41 m³/min	1,450 scfm
DTH	24.1 bar	350 psi
Low pressure	56.6 m³/min	2,000 scfm
Rotary	6.9 bar	100 psi
HOIST		
Hoist rate	0 - 43.9 m/min	0 - 144 fpm



“When they first started putting it together I really noticed all the availability for access to every area on the drill. With the walkways, and the placement of the walkways, there was a lot of thought put into being able to access those areas.”

— KEVIN WHITE, DRILL & BLAST SUPERVISOR,
CORTEZ GOLD CORP



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