

# CoroDrill® DE10

## Time for change



### Redefining plug-and-play

The overlooked potential of exchangeable-tip drills is substantial. It's time for change.

Introducing CoroDrill® DE10, the new best-performing exchangeable-tip drill for superior productive short-hole drilling in all materials.

Featuring the universal -M5 geometry, CoroDrill® DE10 offers seamless plug-and-play functionality and uncompromised performance across a wide range of cutting data.

SANDVIK  
coromant



CoroDrill® DE10 is designed for short-hole drilling between diameters 9.00–17.90 mm (0.354–0.705 inch) across all material groups, offering a large cutting data window with high cutting parameters right from the start.

The concept includes cylindrical and cylindrical with flat shank types and offers the unique benefit of a single, versatile geometry that covers all materials.

## Excellence in high feeds

CoroDrill® DE10 offers peak performance at high feeds and speeds, leveraging its unique geometry, high-performance grades and robust pre-tension clamping interface.

Increase your feed by 40% and watch your productivity and cost efficiency soar. Your CO<sub>2</sub> emissions per operation will also be reduced by around 20%.

**40%**  
Feed increase\*

**-20%**  
CO<sub>2</sub> emissions  
per operation

\*Recorded in reference testing.

# Keys for successful drilling

## Hole quality

Maintains hole quality for longer, even after corner wear.

## Robustness

Robust body, interface and tip for a secure process.

## Tool life

Optimized geometry and grades for market-leading tool life in all material groups.

## Plug-and-play

Excellent performance in various materials across a wide range of cutting data.

## No pilot drill required

Drilling without a pilot drill reduces inventory and cycle time

## Productivity

High feed capabilities, reducing cost per component and CO<sub>2</sub> emissions.

## One geometry. No compromises.

The -M5 tip geometry is unique, and offers uncompromised performance in all materials and a wide range of cutting data. In any other exchangeable-tip drill concept, you will need multiple geometries.

With this one-size-fits-all design, CoroDrill® DE10 is easy to apply and exceptionally useful for mixed production.

## Key grip

Direct-pressed key grip for improved durability and safety.

## Land margin

Offers dynamic stability, consistently reduces wear in ductile materials.

## Chisel edge

Along with the gash, it creates a perfect balance of strength and low cutting forces.

## Gash

For improved clearance in the center and perfect centering capabilities.

## Corner reinforcement

Superior edge strength for better wear resistance.

## Point angle

Stable and vibration-free engagement in the workpiece. Vital for good centering and hole quality.

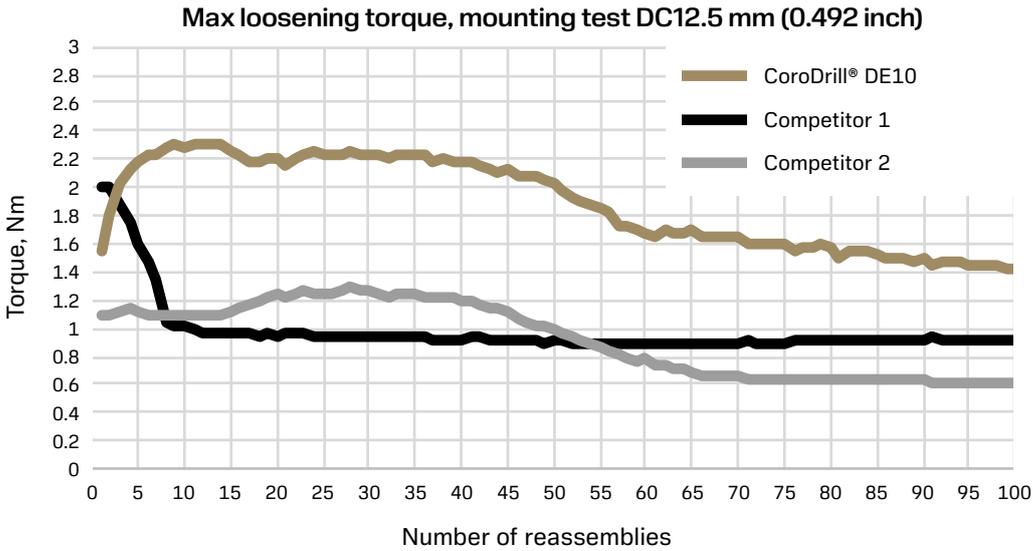
# Durable tip and body

Featuring an optimized chip flute geometry with two twisted coolant holes, the drill tip of CoroDrill® DE10 stands the test of time, achieving good chip evacuation and hole quality. Coupled with a high-strength drill body with reinforced contact faces, it offers market-leading tool life.

When used with recommended feeds and speeds, CoroDrill® DE10 delivers an average tool life increase of 40% or more\*, regardless of the material.

**40%**  
Tool life increase

\*Recorded against competitors in the customer environment.



CoroDrill® DE10 has a higher loosening torque level in general and less reduction in torque overall, improving the drill body tool life.

# Familiar design with a new level of security

The pre-tension clamping interface of CoroDrill® DE10 is just like the ones you are used to, but with next-level security. This patented solution is the most robust design of its kind.

Trouble-free drilling at high feeds and speeds.



Fast and easy tip changes, no spare parts needed.

Superior strength and high clamping forces.

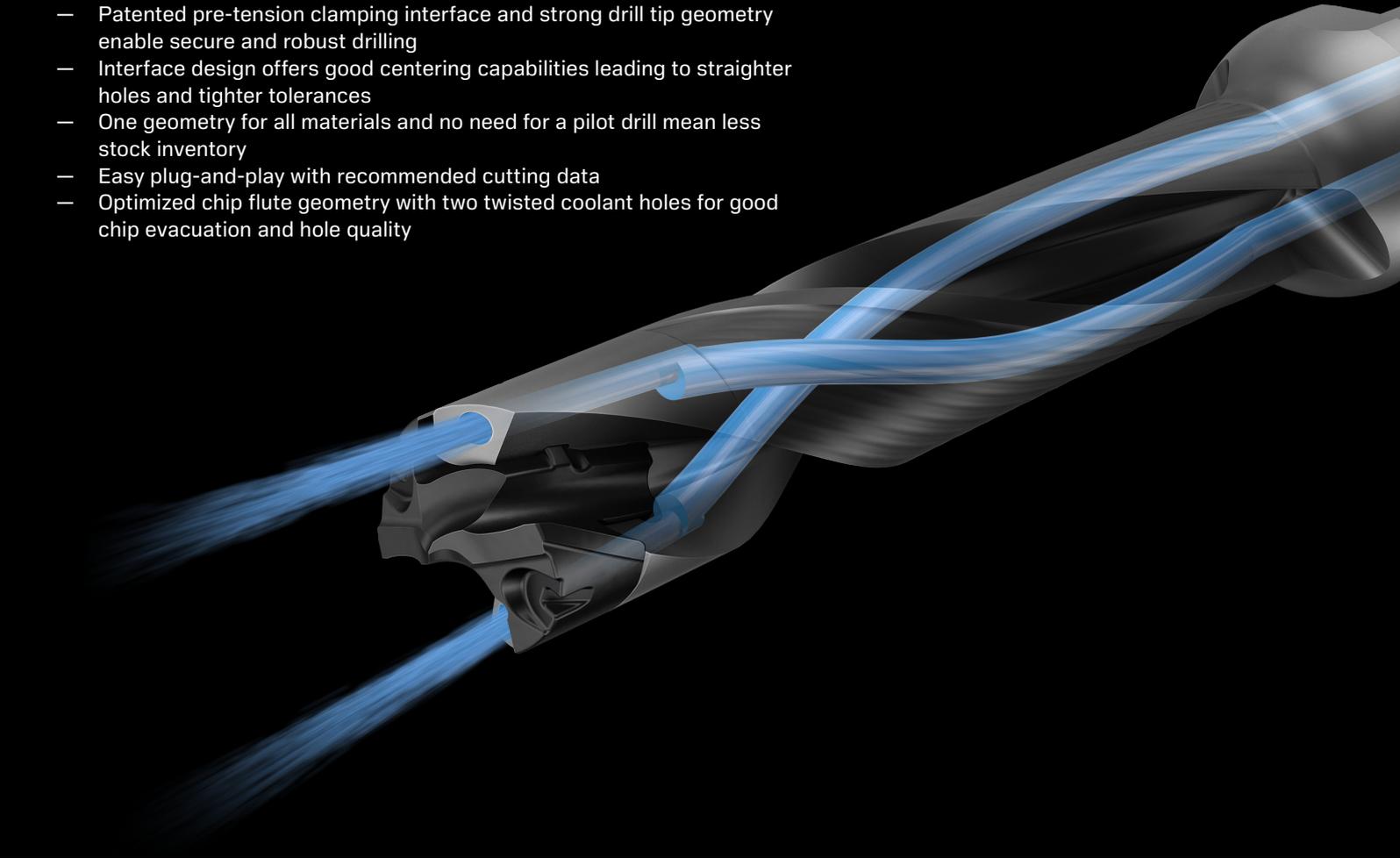
Good centering capabilities lead to straighter holes and tighter tolerances.



More drill tips per drill body.

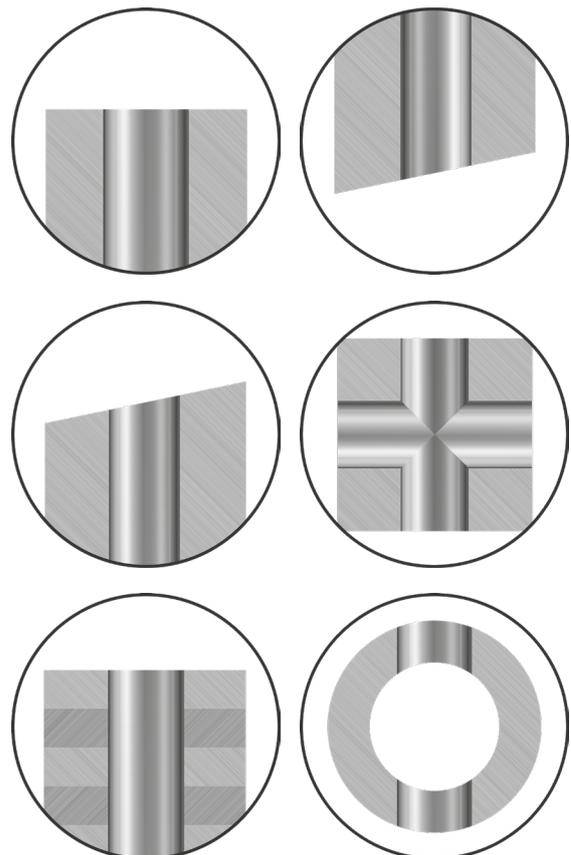
# Features and benefits

- High-feed capabilities allow for a higher penetration rate, increasing productivity and reducing cost per hole
- Patented pre-tension clamping interface and strong drill tip geometry enable secure and robust drilling
- Interface design offers good centering capabilities leading to straighter holes and tighter tolerances
- One geometry for all materials and no need for a pilot drill mean less stock inventory
- Easy plug-and-play with recommended cutting data
- Optimized chip flute geometry with two twisted coolant holes for good chip evacuation and hole quality



## Application

- For high-volume hole making across all industries
- Typical components are heat exchanger plates, automotive components, shafts, pumps and valves, flanges and structural I & H steel beams
- H9/H10 hole tolerance
- Can be used in a variety of drilling applications



ISO application areas

# Grade and geometry recommendations

## -M5 geometry

One geometry for all materials.



## Grade GC4334

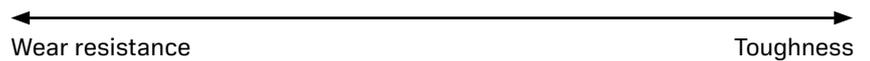


- Tough, fine-grained substrate with high Cr content and PVD coating (AlTiN) produced with Zertivo™ technology
- High reliability with improved edge security offers resistance against built-up edge and chipping

## Grade GC2334



- Tough, fine-grained substrate with high Cr content and a thin, multi-layer PVD coating (AlTiCrN) produced with Zertivo® technology
- For high reliability and improved resistance against chipping and flaking on land margin



# Product range

## Drill bodies

Drill diameter, mm (inch)	Shank type	Drill depth (×DC)
9.00–9.9 (0.354–0.390)	Cylindrical (mm and inch)	3, 5, 8
10.00–17.90 (0.394–0.705)	Cylindrical with flat according to ISO 9766 (mm and inch)	3, 5, 8

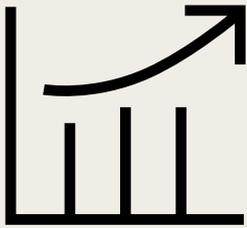
## Drill tips

Drill dimension, mm (inch)	Geometry	Grade	Application
9.00–17.90 (0.354-0.705) DC available in 0.1 mm increments	-M5	GC4334	ISO P, M, K, N, S, H
9.00–17.90 (0.354-0.705) DC available in 0.1 mm increments	-M5	GC2334	ISO M, S, P, K, N, H

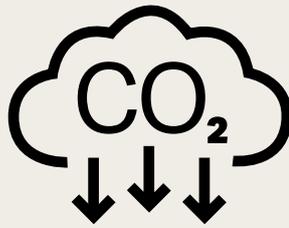


# Productive sustainability

CoroDrill® DE10 sets the stage for sustainable manufacturing. By allowing for higher cutting parameters and faster metal removal, it significantly reduces CO<sub>2</sub> emissions. Its robust design ensures predictable wear patterns and maximizes tool longevity, minimizing waste and supporting responsible manufacturing goals.



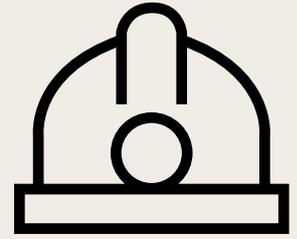
Higher productivity



Minimize energy consumption



Longer tool life



Workplace safety

## Drill tip mounting key



- Included in each drill box
- One key covers the complete drill range
- Great visibility during the assembly process
- Hardened stainless steel with premium feel and high durability
- Easily recyclable
- Order no: 5680 300-01



- Plastic handle option (ordered separately)**
- Improves ergonomics and avoids the risk of carbide splintering
  - Transparent for good visibility
  - Collars for guidance and improved assembly
  - Easily recyclable
  - Order no: 5680 300-20

# Customer case study

Outperformed competitor in stainless steel

**Country:** Italy  
**Component:** Plate  
**Material:** M1.0.Z.AQ, AISI316L, austenitic stainless steel  
**Operation:** 52 mm (2.05 inch), one part through hole and one part blind hole  
**Machine:** Doosan NHP6300  
**Coolant:** Emulsion 8%, 70 bar (1015 PSI)

**Challenge:** Due to the cost of the component, reliability and repeatability were the most important factors for the customer.

**+57%**  
Productivity

**+43%**  
Tool life

	Competitor	CoroDrill® DE10
Tool	-	DE10-D1600-160L20-5
Drill tip	-	DE10-1650-160-M5 4334
$v_c$ , m/min (ft/min)	40 (131)	<b>55 (180)</b>
$n$ , rpm	772	1060
$f_n$ , mm (inch)	0.14 (0.0055)	<b>0.16 (0.0063)</b>
$v_f$ , mm/min (in/min)	108 (4.25)	170 (6.69)
<b>Tool life, holes</b>	126	<b>180</b>
<b>Tool life, m (ft)</b>	6.6 (21.7)	<b>9.3 (30.5)</b>
<b>Tool life, min</b>	61	<b>55</b>

**Result:** CoroDrill® DE10 operated with a satisfactory sound level and achieved good chip formation, producing a high-quality hole surface and a hole diameter that met expectations. It outperformed the competition in both productivity and tool life.



**Sustainability proposition:**

Using CoroDrill® DE10 leads to a 35% reduction in CO<sub>2</sub> emissions, saving 260 kWh of energy and 200 kg of CO<sub>2</sub> yearly.

Find out more:  
[sandvik.coromant.com/  
corodrilde10](https://sandvik.coromant.com/corodrilde10)



Authorized distributor

