

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 mastering productive short-hole drilling in all materials.

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

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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 presents the unique benefit of a single, versatile geometry that covers all materials.

Thriving in high feeds

The peak performance of CoroDrill® DE10 is achieved 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 soar and cost efficiency peak. Plus, you will reduce your CO₂ emissions per operation by approximately 20%.

40%
Feed increase*

-20%
CO₂ emissions
per operation

*Recorded in reference testing.

Keys for successful drilling

Hole quality

Keeps good hole quality longer, even after corner wear.

Robustness

Robust body, interface and tip for a secure process.

Plug-and-play

Works excellent in various materials in 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 CO₂ emissions.

Tool life

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

One geometry. No compromise.

Tip geometry -M5 is one of a kind, offering 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-fits-all design, CoroDrill® DE10 is easy to apply and exceptionally useful for mixed productions.

Key grip

Direct-pressed key grip for improved durability and safety.

Land margin

Provides dynamic stability, still reduced wear in ductile materials.

Chisel edge

Creates, together with the gash, a perfect balance of strength and low cutting forces.

Gash

For improved clearance in the centre and perfect centering capabilities.

Reinforcement corner

Superior edge strength for better wear resistance.

Point angle

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

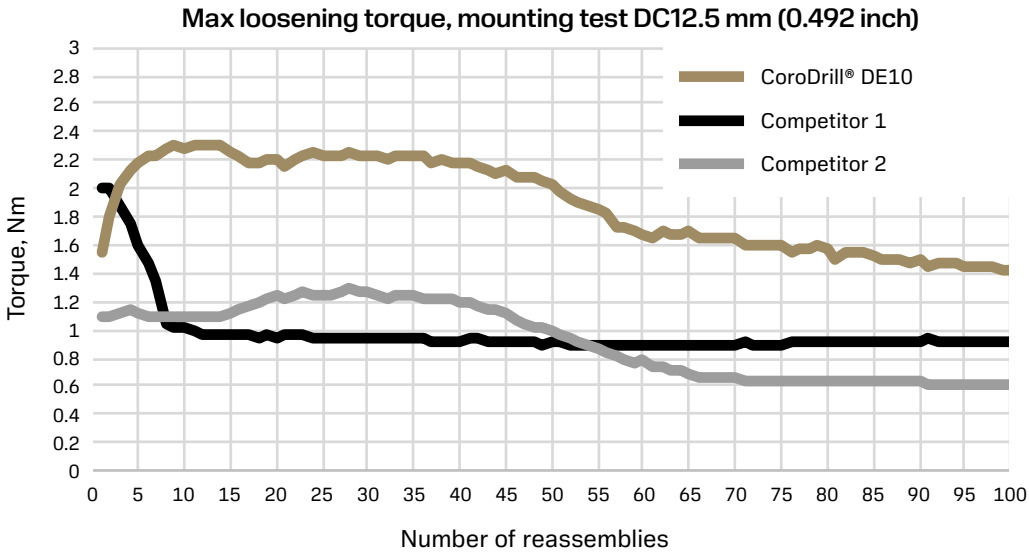
Durable tip and body

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 customer environment.



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

Familiar design with newfound 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.

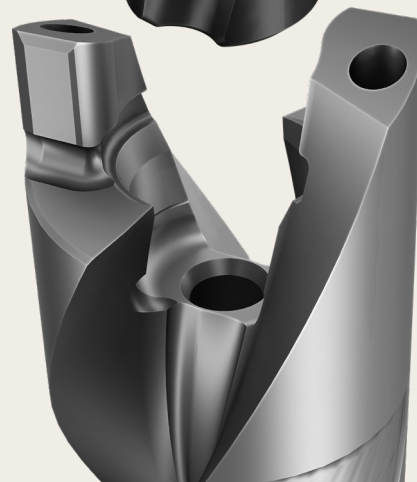
Trouble-free drilling at high feeds and speeds.



Fast and easy tip changes, no spare parts needed.

Superior strength and high clamping forces.

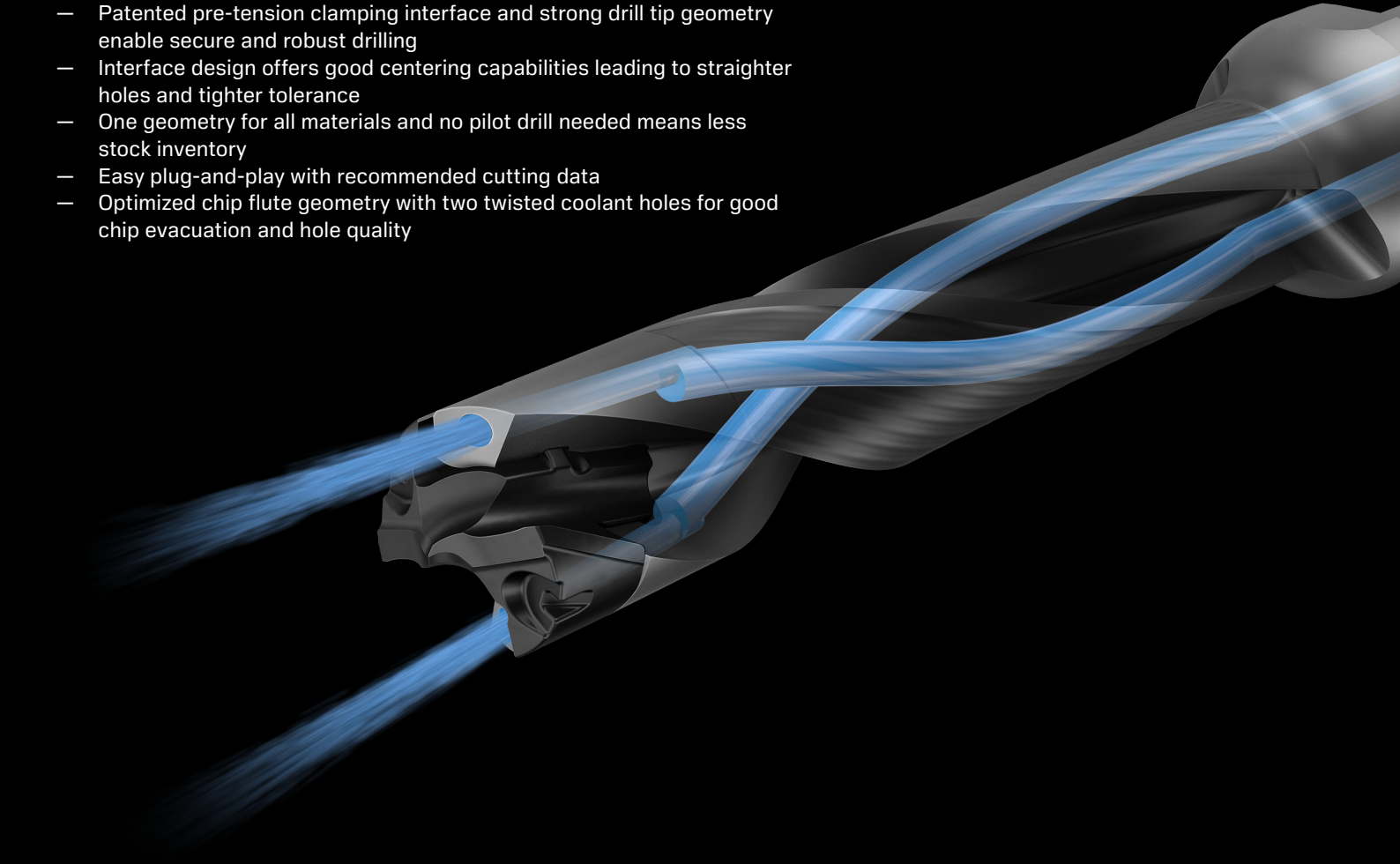
Good centering capabilities lead to straighter holes and tighter tolerances.



More drill tips per drill body.

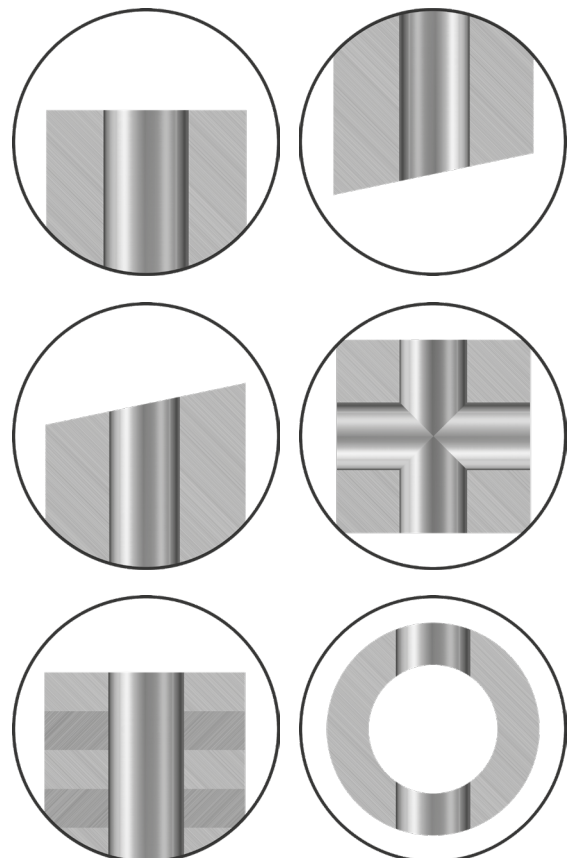
Features and benefits

- High-feed capabilities allow for 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 tolerance
- One geometry for all materials and no pilot drill needed means 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, pump and valves, flanges and structural I & H steel beams
- Hole tolerance H9/H10
- Can be used in a variety of drilling applications



ISO application areas

Grade and geometry recommendations

-M5 geometry

One geometry for all materials.

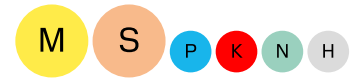


Grade GC4334

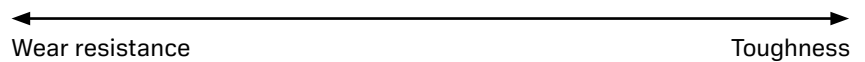


- Tough, high Cr content and fine-grained substrate with PVD coating (AlTiN) produced with Zertivo® technology
- High reliability with high edge security provides resistance against built-up edge and chipping

Grade GC2334



- Tough, high Cr content and fine-grained substrate with 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

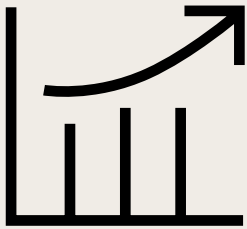
Drill tips

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

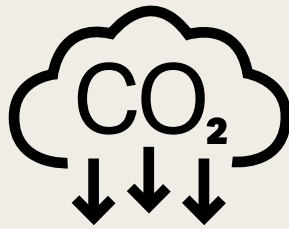


Productive sustainability

CoroDrill® DE10 sets the stage for sustainable manufacturing. By allowing for higher cutting parameters and faster metal removal, it significantly reduces CO₂ emissions. Its robust design ensures predictable wear patterns and maximizes tool longevity, minimizing waste and supporting responsible manufacturing goals.



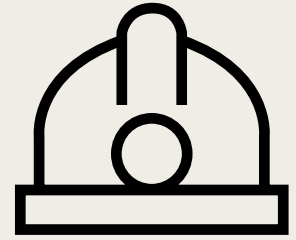
Higher productivity



Minimize energy consumption



Longer tool life

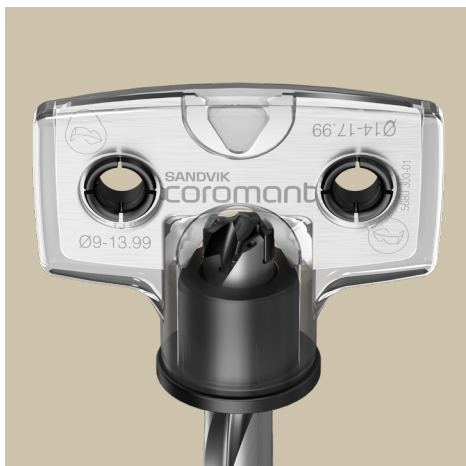


Workplace safety

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 splinter risks of carbide
 - See-through for good visibility
 - Collars for guidance and improved assembly
 - Easily recyclable
 - Order no: 5680 300-20

Customer case

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 to 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)	55 (180)
n , rpm	772	1060
f_n , mm (inch)	0.14 (0.0055)	0.16 (0.0063)
v_f , mm/min (in/min)	108 (4.25)	170 (6.69)
Tool life, holes	126	180
Tool life, m (ft)	6.6 (21.7)	9.3 (30.5)
Tool life, min	61	55

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 CO₂ emissions, saving 260 kWh of energy and 200 kg of CO₂ yearly.

Discover more:
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Authorized distributor

