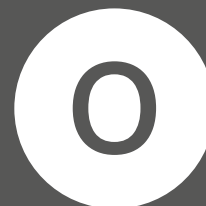


# Solid Round Tools

Solid Carbide Drills  
Reamers  
End Mills  
Thread Mills  
HSS Taps



Versatile



Optimized



Customized



# Content

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# Introducing Solid Round Tools

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Turning Sandvik Coromant into your complete business partner

With more than 10 000 standard products our Solid Round Tools range is developed to cover all application types within the areas of solid carbide drilling, milling, high speed steel tapping, reaming and threading. Every tool is carefully designed to fulfill demands of high quality, precision and maximum productivity so you can get the most out of your machining process. In addition to the standard product range we offer Customized Solutions, including Tailor Made and Advanced Engineered solutions, individually developed by our Yellow Coat experts for your most sophisticated machining demands. Above all, Solid Round Tools come together with an extensive service portfolio, adding that extra portion of efficiency, profitability and knowledge to your production process.

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24 hour delivery of standard products

Extensive service portfolio

Yellow Coat expertise

Leading industry segment know-how

Customized solutions

To view complete tool range online, visit

[www.sandvik.coromant.com/solidroundtools](http://www.sandvik.coromant.com/solidroundtools)



# Our product portfolio

---

It's not the size of the operation, it's the range of application.

Everything we do is about supporting workflow, efficiency and productivity. From experience we know that this requires different solutions for different customers on different occasions. There is no one size fits all. Consequently we have developed an offer that includes solid round tools in three different categories.



## Versatile solutions

A complete range of high performance products that offer high flexibility and cost efficiency.

To view Versatile solutions on our web, visit  
[www.sandvik.coromant.com/solidroundtools/versatile](http://www.sandvik.coromant.com/solidroundtools/versatile)



## Optimized solutions

A unique line of refined tools for specific needs that provide extreme efficiency, reliability and durability.

To view Optimized solutions online, visit  
[www.sandvik.coromant.com/solidroundtools/optimized](http://www.sandvik.coromant.com/solidroundtools/optimized)



## Customized solutions

Tailor Made and Advanced engineered products, individually designed to meet the highest demands on performance.

Find more information about Customized solutions on our web at  
[www.sandvik.coromant.com/solidroundtools/customized](http://www.sandvik.coromant.com/solidroundtools/customized)

# How to find the right product

---

1. Select application type (drilling, milling, tapping etc)
2. Select the section of our portfolio depending on your demands

- One tool for many materials
- A robust tool for various applications
- Ideal for small batch- and varied production

Choose Versatile



Versatile

- Tool dedicated for specific material
- Tool refined for specific application
- Ideal for medium to large batch production

Choose Optimized



Optimized

- A unique tool customized for your application
- Advanced application knowledge and expert advice
- Tool that is not available in the standard offer

Choose Customized



Customized

# Milling

---

V C

CoroMill® Plura - Versatile

O C

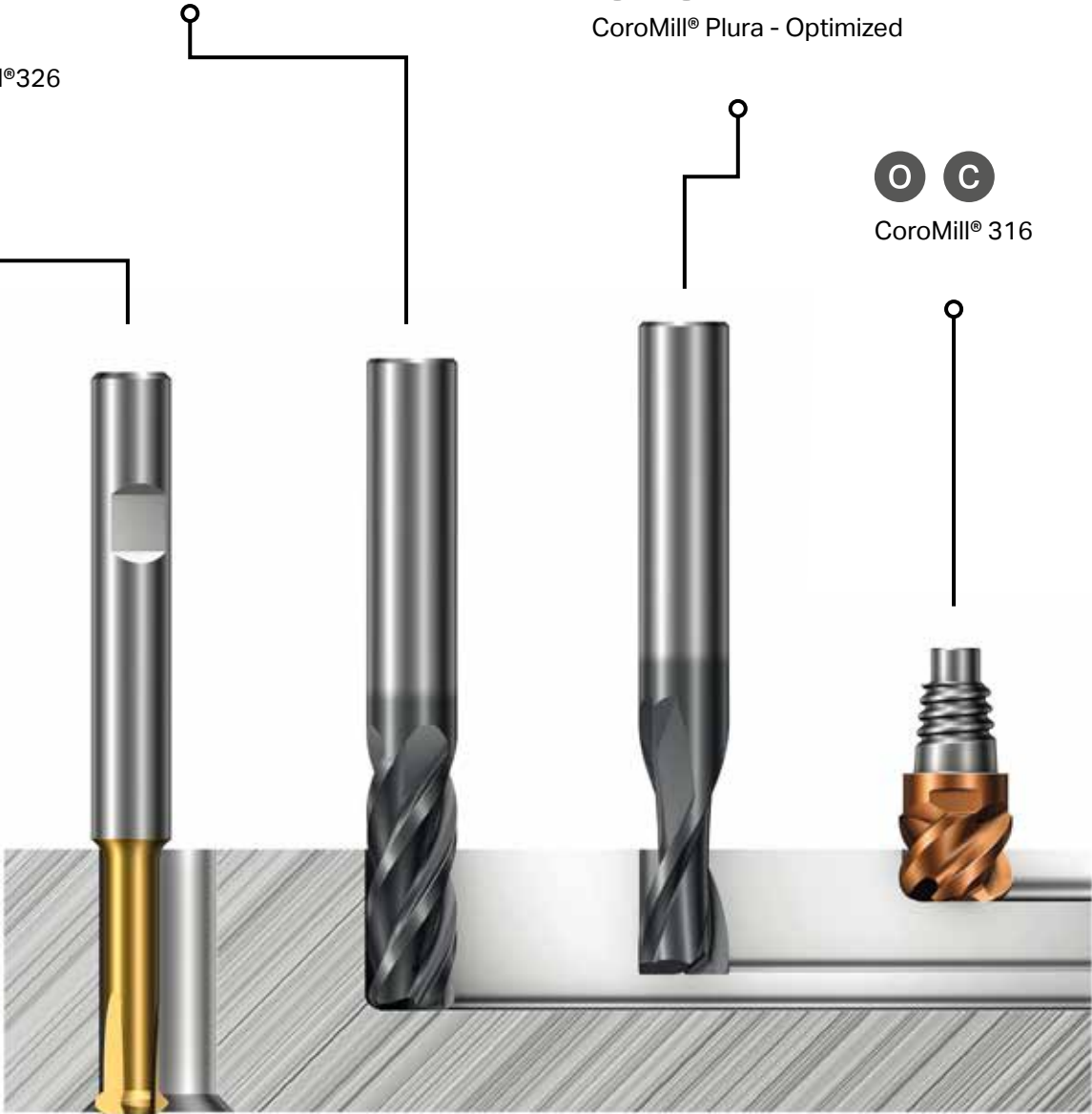
CoroMill® Plura - Optimized

O C

CoroMill® 316

O

CoroMill®326



# CoroMill® Plura - Versatile

High performance end mills with high flexibility and cost efficiency



**Versatile** tools designed for high performance and secure machining in a variety of materials, applications, component sizes and shapes, allowing maximum machine utilization.

## Application

- Heavy roughing
- Medium roughing
- Roughing with chip breaker
- Profiling
- Chamfer milling



For your most demanding machine utilization in various components and for variable production you need tools with the highest precision, robustness and versatility. When precision, stability, and cost-efficient machining is paramount a CoroMill Plura Versatile is your first choice.

## ISO application area:



## Product range

- Selected high quality grades for all materials and conditions
- Robust geometries smartly designed to adapt in different milling applications
- Cylindrical and Weldon shank options
- Straight, with and without chip-dividing cutting edge tool shapes
- Ball nose tools and chamfering tools
- Can be reconditioned up to three times to original specifications





# CoroMill® Plura - Optimized

Top performing end mills for specific materials and applications



**Optimized** tools with geometries and grades for specific materials and applications, maximizing production output per time unit.



## Application

- Heavy duty milling
- High feed side milling
- Stable multi-operations milling
- Large chip removal
- Hard part milling
- Composite milling
- Finishing
- Micro-milling
- High feed face milling
- Profile milling
- Roughing with chip-breaker
- Turn milling
- Thread milling



For your most quality-demanding components and difficult applications you need the highest quality tools. When close tolerances and efficient machining are paramount, a solid end mill is your choice.

## ISO application area:



## Product range

- Perfect combination of specific high quality grade and a sophisticated geometry for specific material and application
- Cylindrical, Weldon and shank options
- Straight, spherical and conical ball nose tools
- Roughing tools with and without chip-dividing geometry
- With and without neck, undersized shanks available
- Tools with internal coolant available
- Can be reconditioned up to three times to original specifications



# CoroMill® 316

Roughing to finishing

## Application

- Slot milling
- Helical interpolation
- Shoulder milling
- Profile milling
- High feed face milling
- Chamfer milling



## ISO application area:



## Product range

- Tools with high feed capability
- Chip-breaker geometry
- Tools with internal coolant
- Geometries for roughing to super-finishing
- Wide assortment of shanks and integrated machine adaptors



## Coromant EH coupling

The Coromant EH coupling provides reliability and accuracy between the head and the shank. It is easy to handle and the head can be changed in a few seconds.



# CoroMill® 326

Internal threading and chamfering in small holes

## Application

- Internal thread milling
- Chamfer milling



## ISO application area:



## Features and benefits

- Three cutting edges for productivity
- Chamfering and back-chamfering of holes with one tool
- Very high precision and low cutting forces
- Same tool for different pitches
- One grade for all materials
- Partial thread profiles for flexibility



Chamfering

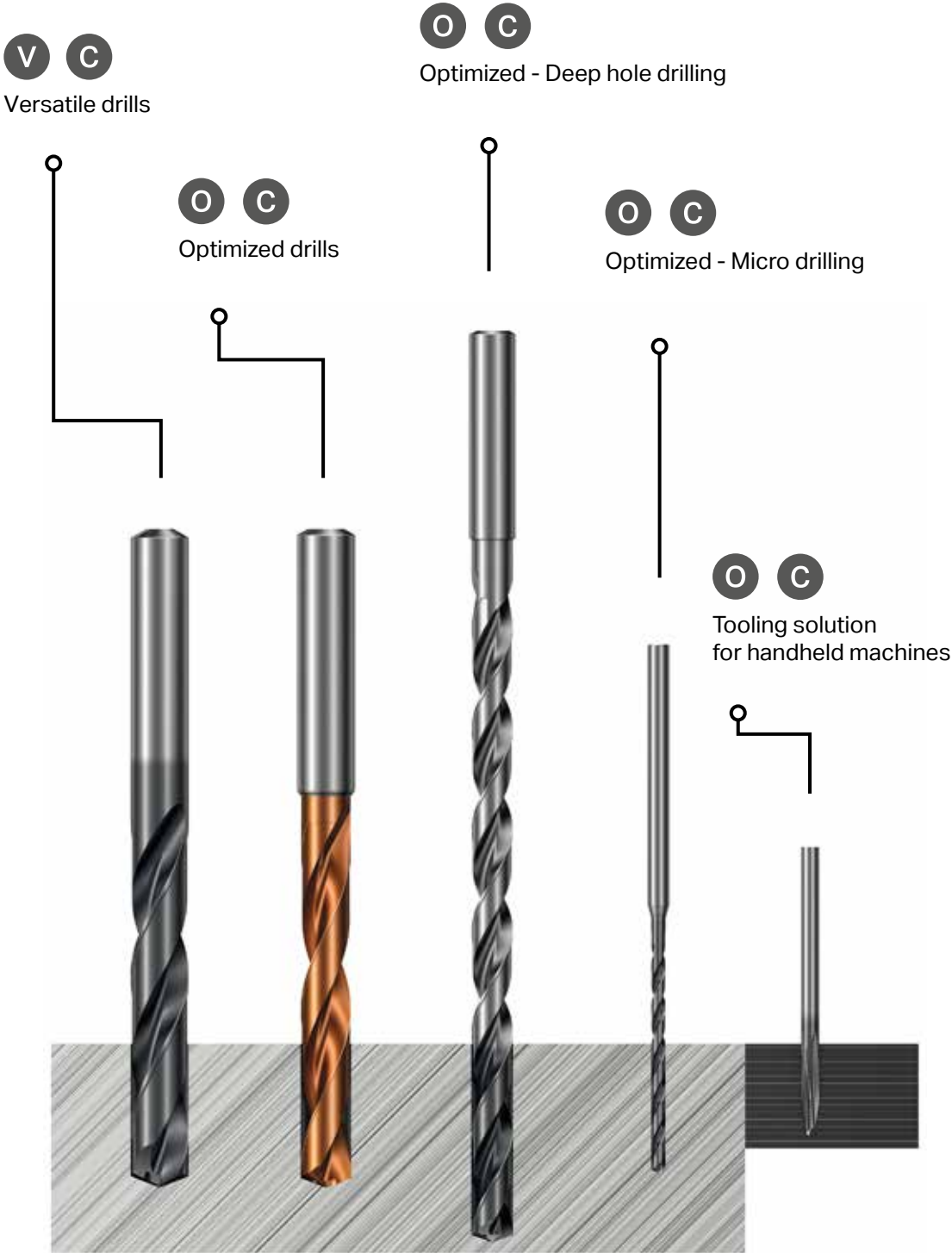


Threading

Use CoroChuck™ 930 to maintain efficient production through quick and easy tool set ups and changes.



# Drilling



# CoroDrill® 460

Versatile high-performance solid carbide drills



## Application

- For a wide range of materials in all industry segments, e.g. general machining, die and mould, automotive, energy and power generation
- Internal and external coolant

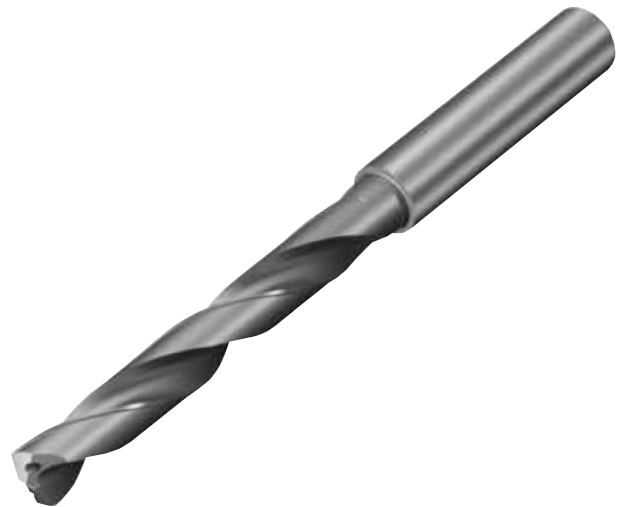


## ISO application area:



## Features and benefits

- High productivity and consistent tool life
- Exceptional value with no compromise on quality
- Excellent hole quality
- Reduced tooling costs
- Can be reground up to three times, extending tool life even further
- 20 Bar coolant pressure



## Recommendations

Designed to be used with high precision shrink fit collet of a hydraulic chuck. This will further promote good hole quality, reduced radial run-out and extended tool life

Use internal coolant for optimal cutting efficiency and chip evacuation, resulting in higher productivity

Use CoroChuck™ 930 to maintain efficient production through quick and easy tool set ups and changes.



# CoroDrill® 860

High performance drills optimized for steel, stainless steel and aluminium



## Application

860-PM: Long- and short-chipping steel materials, such as unalloyed steels, low carbon steels, low-alloy steels, high-alloy steels and steel castings.

860-MM: Long-chipping stainless steel materials such as austenitic, super austenitic, ferritic and duplex stainless steels.

860-NM: Non-ferrous materials, such as aluminium alloys, magnesium and copper based alloys including bronze.

For nickel-based and titanium-based alloys, use CoroDrill R846.



## ISO application area:



## Features and benefits

- Optimized cutting data
- Low cost per hole
- Improved performance reliability
- Trouble-free chip evacuation
- Long tool life, controlled wear formation
- Consistent hole tolerance
- Can be reconditioned up to 3 times to its original specification



## Recommendations

It is recommended to use internal coolant, minimum recommended pressure 20 bar.

Use CoroChuck™ 930 to maintain efficient production through quick and easy tool set ups and changes.



# CoroDrill® R840

Problem solver for difficult applications



## Application

- Conventional drilling, stack drilling, step- and chamfer, angled surfaces, cross hole and thread holes
- High precision applications in various materials



## ISO application area:

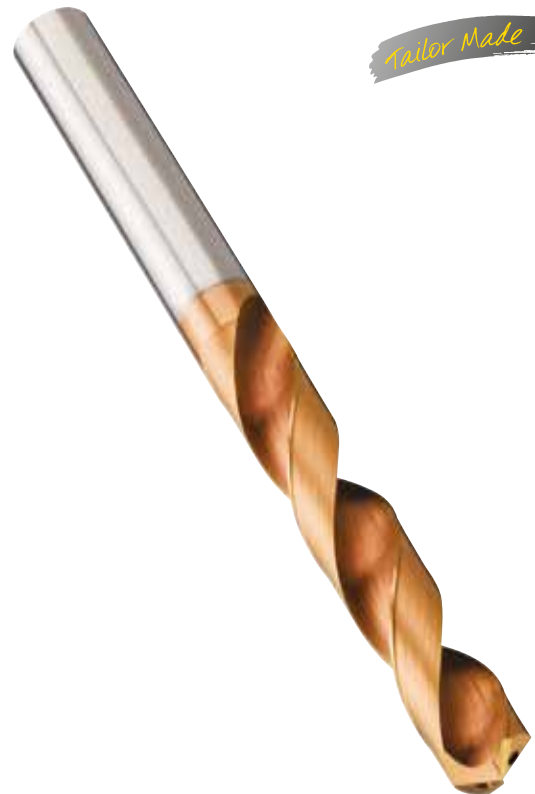


## Features and benefits

- Secure and predictable solution with minimized run-out
- Close hole tolerances
- Regrindable
- Suitable for a large range of materials
- With or without through coolant
- Robust geometry and grade for all materials

## Recommendations

Stable tool holding with CoroChuck™ 930  
20 bar coolant pressure  
Rigid workpiece clamping



Use CoroChuck™ 930 to maintain efficient production through quick and easy tool set ups and changes.



# CoroDrill® 861

High stability deep hole drilling up to 30 x DC



## Application

- Achievable hole tolerance H8–H9
- Drilling depths: 12–30 × drill diameter
- Clamp with high precision chucks only
- A wide range of workpiece materials
- Conventional drilling, cross holes, angled faces
- Automotive: crankshafts, engine blocks, cylinder heads
- 20 bar coolant pressure

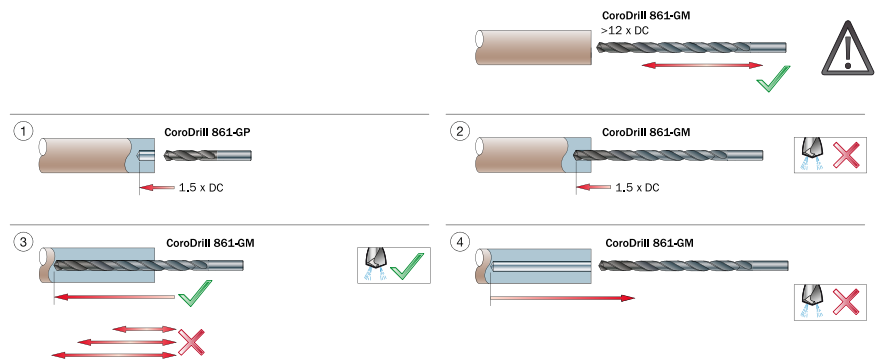


## ISO application area:



## Features and benefits

- Specially designed point geometry, helps reduce thrust forces
- Consistent edge preparation, protects the cutting edge from premature chipping and flaking
- Double offset margin patented geometry offers greater stability to the drilling operation
- Internal coolant holes deliver coolant directly to the tip of the drill even at deep drilling depths
- Can be reconditioning to tools original specification, for extended tool life



Use CoroChuck™930 with your CoroDrill 861 to maintain efficient production through quick and easy tool set ups and changes.





# CoroDrill® 862

Solid carbide drill with internal coolant supply for micro holes



## Application

- Achievable hole tolerance: H8–H9
- Suitable for all materials
- Drill lengths: 8–12 × drill diameter



## ISO application area:



## Features and benefits

- High performance in steel, stainless steel, cast iron and aluminium
- Engineered tool geometry and surface treatment for efficient chip removal
- Good hole entry and exit, tight hole tolerance
- ACM (Advanced Chip Management) flute geometry for small and manageable chips
- Specially designed point geometry reduces thrust forces
- Smooth drill surface enables fast and efficient chip evacuation
- Internal coolant holes deliver coolant directly to the tip of the drill even at deep drilling depths



Use CoroChuck™930 with your CoroDrill 862 to maintain efficient production through quick and easy tool set ups and changes .



# CoroDrill® 854

Solid carbide drills for CFRP materials



## Application

- CFRP fiber-rich materials
- CFRP/Aluminum stacked materials
- High quality holmaking in composite
- For fiber-rich CFRP with geometry optimized to reduce splintering and fraying



## ISO application area:



## Features and benefits

- The geometry design with spurs is developed to successfully reduced fraying and splintering
- CoroDrill 854 are introduced in grade NB20C, a diamond coated solid carbide grade that provides long tool life in these abrasive materials.



Use CoroChuck™ 930 to maintain efficient production through quick and easy tool set ups and changes.



# CoroDrill® 863

Drills for CNC, ADU and Robotic machines  
in aerospace assembly materials



## Application

- CNC and ADU operations
- CVD, PCD and carbide options available
- Material types: composite, aluminium, titanium, heat resistant super alloys and stainless steel



## ISO application area:



## Features and benefits

- Low-thrust geometries reduce hole delamination and exit burr
- Stocked items are perfect for testing capability in specific applications
- Point geometry of CFRP cutters can successfully exit woven and unidirectional CFRP



## Assortment

- CoroDrill 863® - O: Designed for long life in CFRP stacks
- CoroDrill 863® - OS: Designed for good chip management in CFRP/Titanium stacks
- CoroDrill 863® - N: Designed for high speed machining in aluminum stacks
- CoroDrill 863® - MS: Designed for hard metal stack applications

# CoroDrill® 452

Solid carbide drills, reamers and countersinks

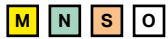


## Application

- Portable hand-held machines
- Aerospace rivet- and bolt holes
- Carbon fibre reinforced plastics (CFRP)
- Carbon fibre reinforced plastic/metallic-s tack materials



## ISO application area:



## Features and benefits

- Close hole tolerances, good surface finish
- Tools optimized for CFRP and metallic-stack materials
- Low-thrust geometries reduce risk of hole delamination and burrs



A family of tools for rivet and bolt holes. Options such as step drills, reamers and countersinks are available.

## Assortment

- CoroDrill® 452.1-C: Designed for drilling CFRP stacks
- CoroDrill® 452.1-CM: Designed for drilling CFRP/metal stacks
- CoroDrill® 452.R-CM: Designed for reaming CFRP/metal stacks
- CoroDrill® 452.C1: Designed for countersinking CFRP

# Tapping

---

**O C**

## CoroTap™ 100

- Taps with straight flutes
- Mainly used for short chipping materials like cast iron
- Suitable for both through and blind holes

**V O C**

## CoroTap™ 300

- Taps with spiral flute grinding
- The spiral flute transports the chips out of the hole
- Best option for blind holes

**V O C**

## CoroTap™ 200

- Taps with spiral point grinding
- Pushes the chips forward
- Used for through holes

**V O C**

## CoroTap™ 400

- Taps that form the thread instead of cutting
- For both through and blind holes
- Available with and without oil grooves



# CoroTap™ 100

Cutting tap with straight flutes for through holes and blind holes

## Application

- Taps optimized for specific materials
- For both through- and blind holes
- Depths up to 2.5 x diameter
- Tolerances ISO K: 6H, 6HX, 2B, 2BX, 3B
- Tolerances ISO N: 6H
- Tolerances ISO H: 6H, 6HX



## Features and benefits

- Three coolant holes for optimized strength
- Five flutes to reduce load on cutting edges and to reduce wear
- Unique grade with higher hardness to reduce wear on coating and substrate
- For ISO N materials: taps with interrupted threads for reduced torque

- Taps with straight flutes
- Mainly used for short chipping materials like cast iron
- Suitable for both through and blind holes
- Flute mainly used for cutting fluid but with internal coolant, chip evacuation is also possible

Use CoroChuck™ 970 for synchronized tapping as a first choice. The versatile CoroChuck 970 is designed for a stable and precise tapping process in all materials.



# CoroTap™ 200

Spiral point tap for through holes

## Application

- Only for through holes
- Available in many thread forms and standards
- Up to 3xD depending on materials



## ISO application area:



## Features and benefits

- Chamfer B (3.5-5 threads) for high process security
- Edge treatment for reduced axial force and torque makes the tool run more smoothly, reduces risk of cutting-edge chipping and improves surface quality, tool life and chip formation
- High speed powder steel taps for improved strength, wear resistance and tool life
- Different coatings and grades are available



Use CoroChuck™ 970 for synchronized tapping as a first choice. The versatile CoroChuck 970 is designed for a stable and precise tapping process in all materials.



# CoroTap™ 300

## Spiral flute tap for blind holes

### Application

- Suitable for blind holes
- Available in many thread forms and standards
- Depths up to 3 × diameter



### ISO application area:



### Features and benefits

- The design of the spiral flute secures a constant rake angle and gives a constant cutting process
  - Back chamfer, used on taps with high helix angle, reduces torque and chipping
  - Taps with high spiral angle give excellent chip evacuation and possibilities to thread up to 3 × diameter in blind holes
  - Taps with low spiral angle give strong edges and are suitable for tapping tough materials, generating short chips in blind holes
  - High speed powder steel taps for improved strength, wear resistance and tool life
  - Solid carbide taps for long tool life and high productivity
- 
- Taps with spiral flute grinding
  - The spiral flute transports the chips out of the hole
  - Best option for blind holes
  - Different helix angle for different applications
  - Flute used for both cutting fluid and chip evacuation
  - Different threading depths due to application and geometry



Use CoroChuck™ 970 for synchronized tapping as a first choice. The versatile CoroChuck 970 is designed for a stable and precise tapping process in all materials.





# CoroTap™ 400

Forming tap for through holes and blind holes

## Application

- Suitable for both through holes and blind holes
- Available in many thread forms and standards
- Depths up to  $3.5 \times$  diameter



*Tailor Made*

## ISO application area:



## Features and benefits

- Chamfer C (2-3 threads) and chamfer E (1.5-2 threads).  
Chamfer E mainly used in blind holes with low clearance
- High speed steel with cobalt taps for improved wear resistance
- High speed powder steel taps for improved strength, wear resistance and tool life
  
- Taps that form the thread instead of cutting
- A chip-free solution
- All materials not suitable since there is need of certain ductility.  
Recommended tensile strength limit is  $1200 \text{ N/mm}^2$
- For both through and blind holes
- Available with and without oil grooves



Use CoroChuck™ 970 for synchronized tapping as a first choice. The versatile CoroChuck 970 is designed for a stable and precise tapping process in all materials.

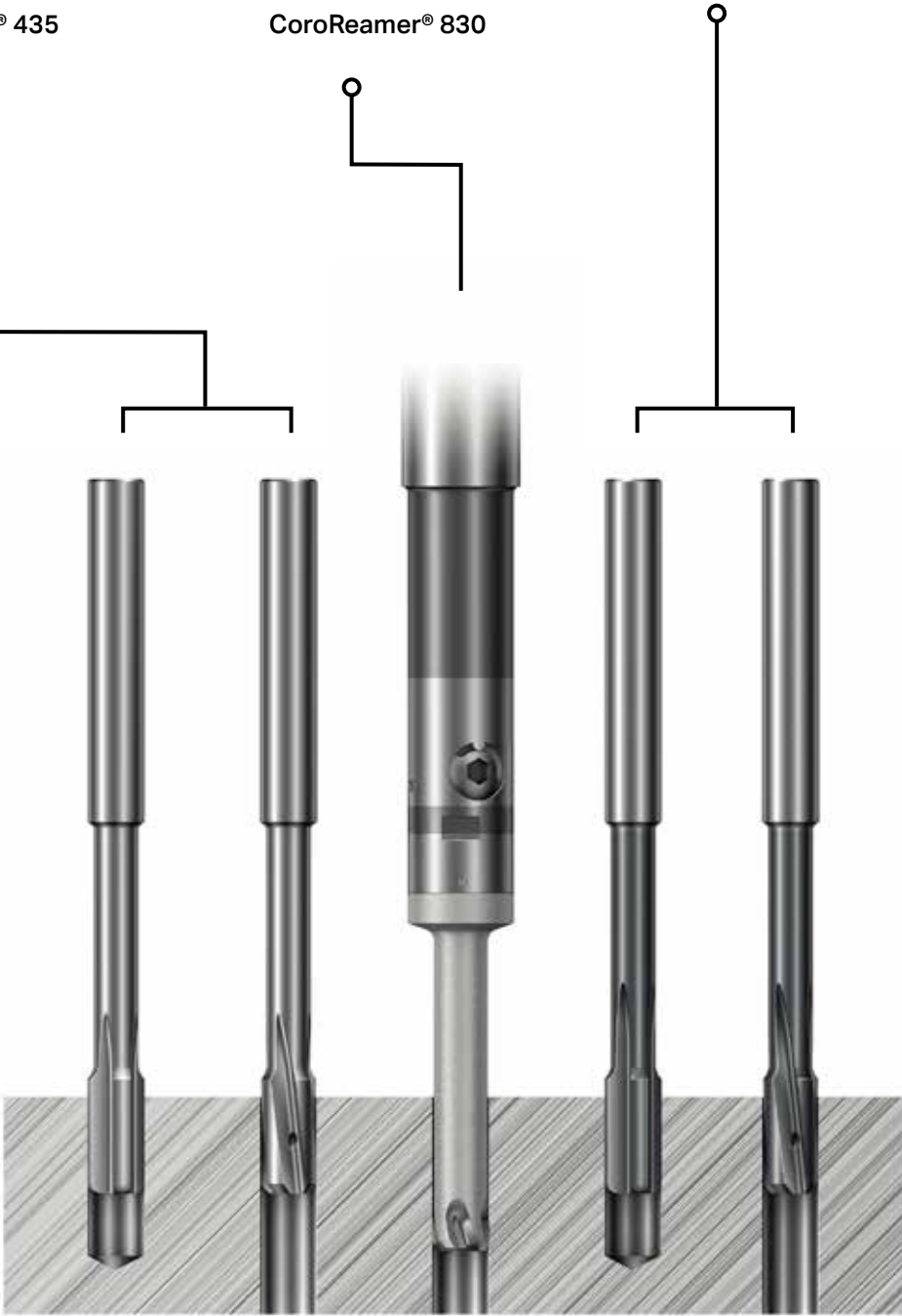


# Reaming

**V C**  
CoroReamer® 435

**O**  
CoroReamer® 830

**O C**  
CoroReamer® 835



# CoroReamer™ 435

Flexible and high-performance reamer, suitable for a wide range of materials



## Features and benefits

- High productivity due to high cutting parameters
- Consistency and productivity saving time and costs
- Excellent surface finish on the component
- Uniform concentricity for long tool life and dimensional accuracy
- High stability due to the solid carbide body
- Internal coolant for better chip evacuation and reduced wear



## ISO application area:



## Product range

- Achievable hole tolerance: H7
- Available in spiral flute for through holes and straight flute for blind holes
- 20 bar coolant pressure

**Versatile** tools designed for high performance and secure machining in a variety of materials, applications, component sizes and shapes, allowing maximum machine utilization.

## Flute geometry with extremely unequal flute spacing

Extremely unequal flute spacing means that the divide is not the same for each tooth. As there are no teeth diametrically opposite each other, the reamer produces a hole with improved hole roundness variance.

Through hole      Blind hole



# CoroReamer™ 835

High performance reamer for steel and stainless steel



## Application

- For all industry segments e.g. general machining, die and mould, automotive, energy and power generation
- Available in spiral flute for through holes and straight flute for blind holes
- Through holes, angled surface and cross hole
- 20 Bar coolant pressure



*Tailor Made*

## ISO application area:



## Features and benefits

- High productivity due to high cutting parameters
- Consistency and productivity saving time and costs
- Excellent surface finish on the component
- Uniform concentricity for long tool life and dimensional accuracy
- High stability due to the solid carbide body
- Internal coolant for better chip evacuation and reduced wear
- Micro-grained carbide for high hardness and toughness
- Flute geometry with extremely unequal flute spacing

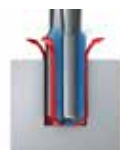


## Flute geometry with extremely unequal flute spacing

Extremely unequal flute spacing means that the divide is not the same for each tooth. As there are no teeth diametrically opposite each other, the reamer produces a hole with improved hole roundness variance.

Through hole

Blind hole



# CoroReamer™ 830

High feed exchangeable-head tool for through holes

---

## Application

- For all industry segments e.g. general machining, die and mould, automotive, energy and power generation
- Available in spiral flute for through holes and straight flute for blind holes
- Achievable hole tolerance: H7
- 20 Bar coolant pressure

## ISO application area:



## Features and benefits

- High surface finish and operation security
- High penetration rate
- Fast and easy head change with high accuracy <math>< 3 \mu\text{m}</math> (120  $\mu\text{inch}$ )
- Effective chip evacuation by directing cutting fluid at each edge
- Achievable hole tolerance: H7
- Brazed cermet inserts in grade P10R
- Short and long shank options
- Head change

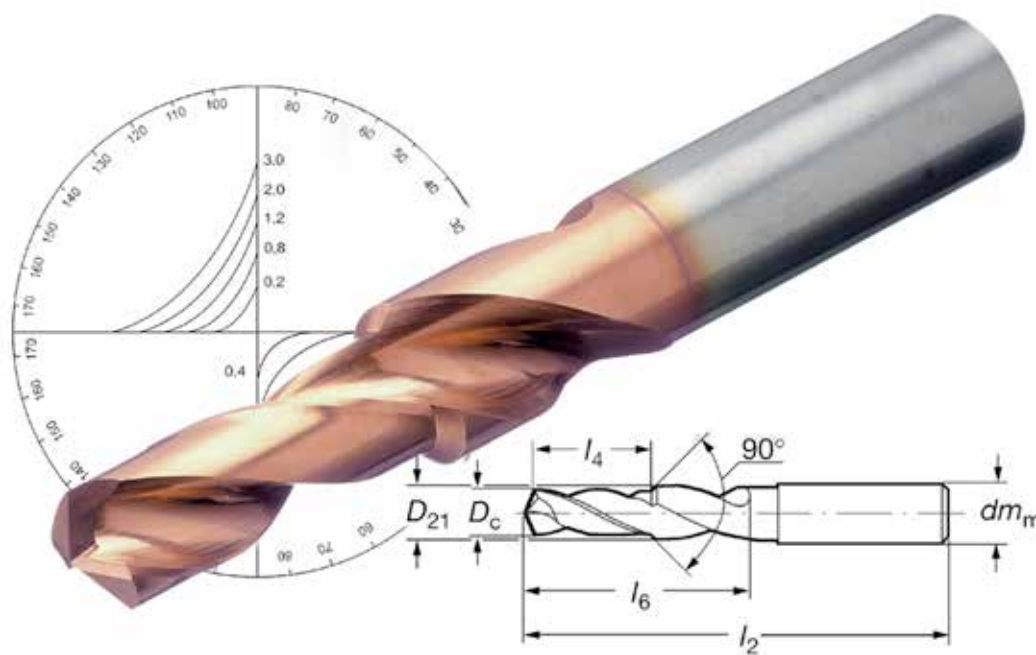


# Customized Solutions



Customized

If your required product solution is not within our standard assortment, we have the expertise to individually engineer, design and manufacture a bespoke product that meets your specific application demands. In our Customized Solutions offer you can choose between Tailor Made or Advanced Engineered, depending on your application complexity and component feature.

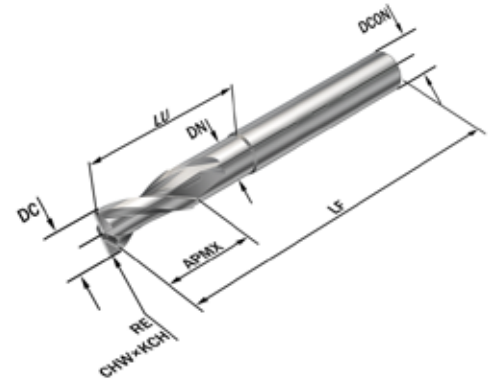


To learn more about Customized Solutions and order your tools, visit [www.sandvik.coromant.com/solidroundtools/customized](http://www.sandvik.coromant.com/solidroundtools/customized)

# Tailor Made



With our Tailor Made range we believe to have created an offer that meets the requirements for most of your needs. Whether it is an alternative diameter, length, shank or other feature required our Tailor Made offer delivers the highest quality and is matched with a swift delivery.



To order: Contact your local Sandvik Coromant representative or visit [www.sandvik.coromant.com/tailormade](http://www.sandvik.coromant.com/tailormade)

## Advanced Engineered

In cases where the Tailor Made offer does not meet your demands due to application complexity or a specific component feature, based on Sandvik Coromant's expertise and in cooperation with you we can engineer, design and manufacture a bespoke product for your application needs.



To order: Contact your local Sandvik Coromant representative



# Reconditioning

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We offer more than just traditional „regrinding“.  
With our reconditioning service we guarantee repeated original performance of your tools to reduce your cost per application.

## Our offer



100%

### Reliability

Our specialists are available for you with support and know-how.



x3

### Original performance

The original tool quality is guaranteed - up to three times.

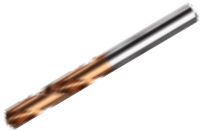


50%

### Savings

With reconditioning you can reduce your tool costs up to 50%.

## Products in service



Drilling



Milling



Reaming



As indicated by the reconditioning symbol on family and product pages.

## Additional information



### Reconditioning box

The box can be ordered in two sizes

- Small (300 x 200 x 138 mm)  
Article number: 6949557
  - Medium (400 x 300 x 138 mm)  
Article number: 6949558
- All Sandvik Coromant tool types can be shipped in same box.



### Reconditioning service

- Prior to reconditioning, an inspection will determine if your tool can be reconditioned. Non-reconditionable tools will be returned
- A laser mark on the tool shank indicates each reconditioning service performed
- The tools are delivered back in original packaging



### What happens with your tools?

- Complete geometry restoration
- Drill length is reduced
- End mill diameter and length are reduced
- Minimum diameter is about 0.9xDc
- Reamer diameter tolerance is maintained



# Ifind

Our most practical tools collected for your convenience

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You are online, you are on the move and you are in the workshop. Wherever you are, you can access the features you need through the Ifind app.

The app will help you find tools, solutions or the information you need for your activities. You can get tool recommendations, you can make purchases, track your order, and even educate yourself. What do you want to do today?

Everything you find in the Ifind app is available on any device.



# To order your tools...

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There are many ways to find the complete assortment and to order your tools. Use this catalogue or find our complete assortment on our web. Also, in our digital library Publications you can find our latest catalogues and brochures in digital format.



[www.sandvik.coromant.com](http://www.sandvik.coromant.com)

Find the latest assortment on our website.



Publications

The digital library is available both online and offline at [www.sandvik.coromant.com/publications](http://www.sandvik.coromant.com/publications)

## We are always here for you!

Our ambition is to make it easy for you to find and order the right tool. Do not hesitate to contact Sandvik Coromant representative if you do not find what you need. Whether it is a customized tool you need or a particular service that you are looking for - we are just a call away!



Local support is just a click away

[www.sandvik.coromant.com](http://www.sandvik.coromant.com)



Contact your local Sandvik Coromant representative

Head office:  
AB Sandvik Coromant  
SE-811 81 Sandviken, Sweden  
[www.sandvik.coromant.com](http://www.sandvik.coromant.com)  
E-mail: [info.coromant@sandvik.com](mailto:info.coromant@sandvik.com)

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Coromant