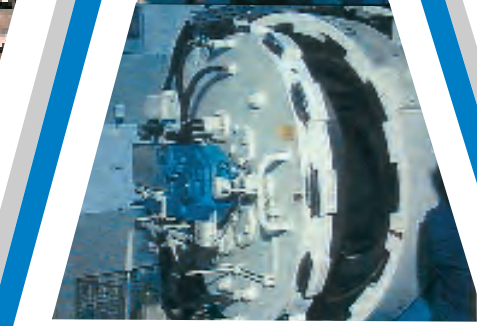




**MIRCONA®**

**Everything for metal  
Machining "Under one  
Roof"**





**MIRCONA** is a Swedish company with its head office situated in the town of Gävle, Sweden. The main activity of the company since it was founded in 1948, has been design, manufacturing, marketing and sales of carbide cutting tools for metal machining. Originally the product range solely consisted of special tools made in accordance with customers design. Today a complete range of turning and milling tools with related inserts in carbide or ceramics has been developed.

Almost 90 % of **MIRCONA's** total product volume is being exported to approximately twenty different markets world-wide, with Japan as the single largest export market. During recent years the company has expanded and is at the present established in the whole of Europe, North America and the Far East Area.

The **MIRCONA** name is synonymous with parting-off and grooving tools, an area in which the company offers the largest standard tool range on the world market. **MIRCONA** can however also offer unique cutting tools for other applications of metal removal machining.

See for yourself by studying the brochure and do not hesitate to contact us for further and full product information.

## MIRCONA CVD coated carbide grades

Multi-layer coating of  
TiC/Ti(CN)/TiN

**TNC 100**

P30-P50

**TNC 140**

P40, M25

**TNC 150**

P30-P50

**TNC 250**

P10-P30, M10-M30,  
K20-K30

Multi-layer coating of  
TiN/TiCN/Al<sub>2</sub>O<sub>3</sub>/TiN

**ALC 145**

P30-P35, M15-M20

**ALC 245**

P20-P30

**ALC 345**

P15-P20, K20

**ALC 350**

P01-P25, K01-K15

**ALC 355**

P01-P30, M05-M25

**ALC 400**

P10, K10-K15

## MIRCONA ceramic grades

Oxide ceramics

**CEW 075**

P01-P10, K01-K10

**CEB 250**

P01-P10,  
K01-K10

**CEB 225**

P01-P10,  
K01-K10

Nitride ceramics

**CES 050**

K01-K10

**CES 025**

K01-K15

**CES 060**

K01-K15

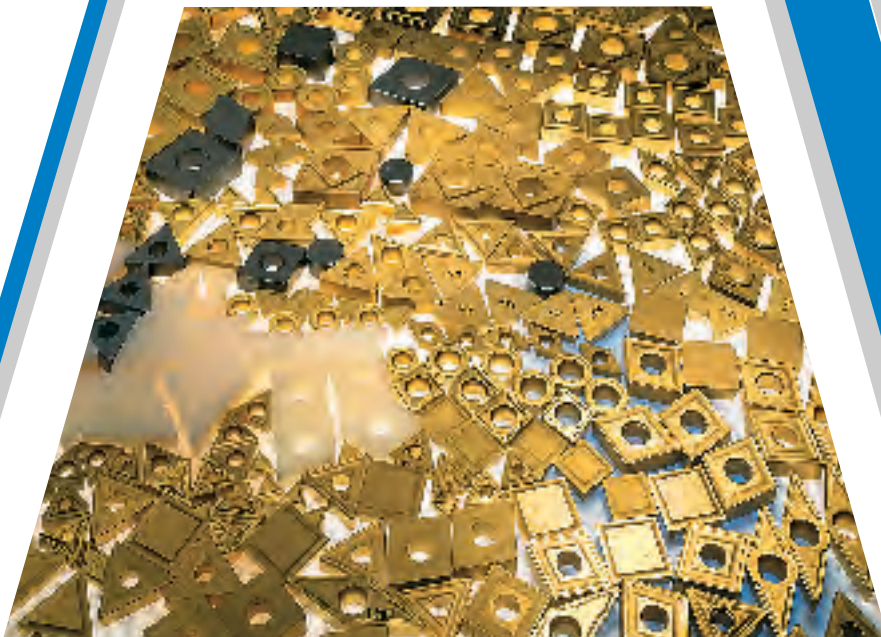
Multi-layer coating of  
TiN/TiCN/Al<sub>2</sub>O<sub>3</sub>

**ALC 410**

K10-K15

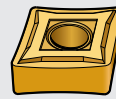
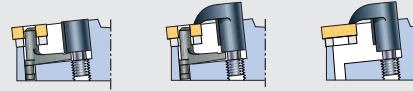
## ISO throw-away inserts

MIRCONA offers a wide selection of throw-away inserts for turning and milling in uncoated or coated carbide grades or in ceramics. A large number of different cutting geometries adapted to finishing, medium roughing and roughing are stocked as standards.



## MIRCONA sophisticated cutting geometries for turning

PMC



**-NF2**



**-NF1**



**-NM1**



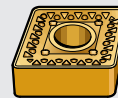
**-NM2**



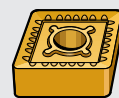
**-NM3**



**-NM4**

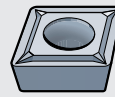


**-NR1**



**-NR2**

S



**-PF1**



**-PF2**



**-PM1**



**-PM2**

## MIRCONA PVD coated carbide grades

**TNP 140**

TiAlN  
M15-M25

**TNP 175**

TiN  
P15-P40

**TNP 200**

TiCN  
P25-P40,  
K10-K30

**TNP 220**

TiAlN  
M15-M20,  
K15-K20

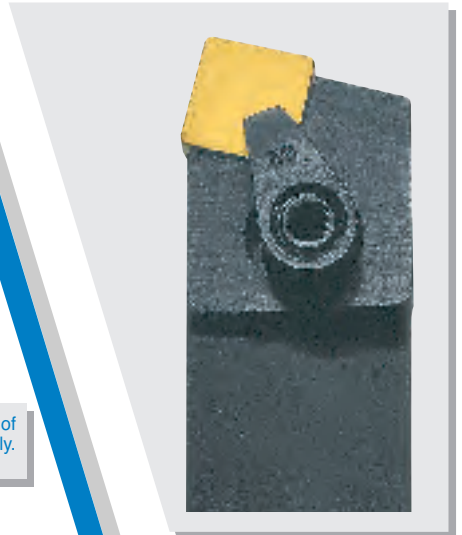
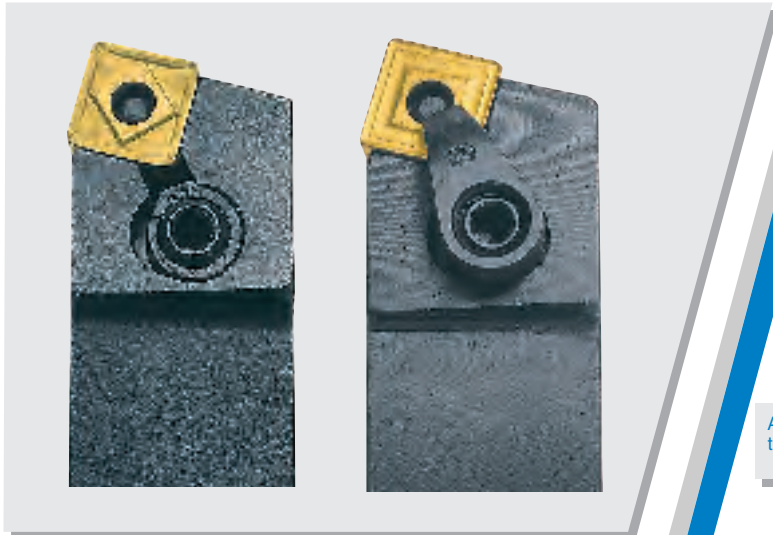
**TNP 225**

TiCN  
P10-P35,  
K05-K25

## MIRCONA coated carbide grades

MIRCONA offers eleven multi-layer coated CVD grades, and five PVD grades with high wear resistance in combination with extreme toughness for all machining operations from finishing to heavy roughing in most materials. For operations with very pronounced demands on high wear resistance and high cutting speeds MIRCONA offer six different ceramic grades.

## PMC tool holders



P

Alternative clamping of the insert with pin only.

M

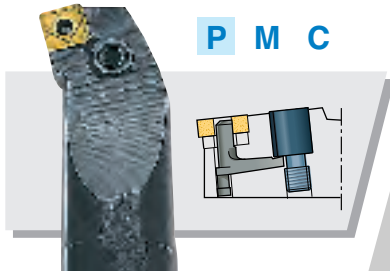
Alternative clamping of the insert with pin and top clamp in one tightening operation.

C

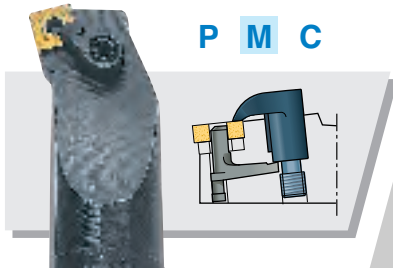
Alternative clamping of the insert with top clamp only for inserts without hole.

### “3” holders in one

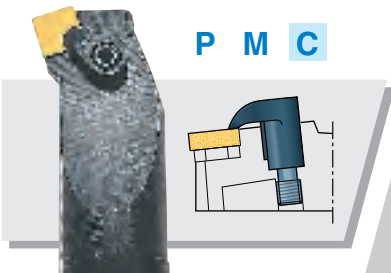
Negative combination tool holder. The range includes holders for external and internal machining.



P M C

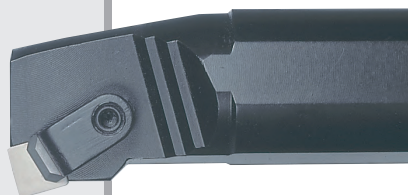


P M C



P M C

### Tool holders for ceramic inserts

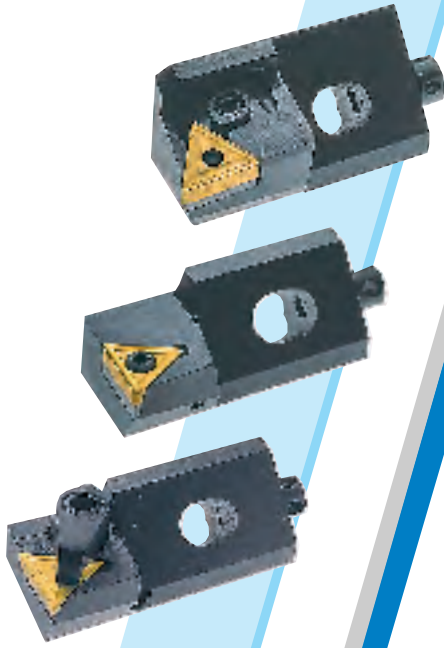


Negative for external or internal turning with 8 mm ceramic inserts.

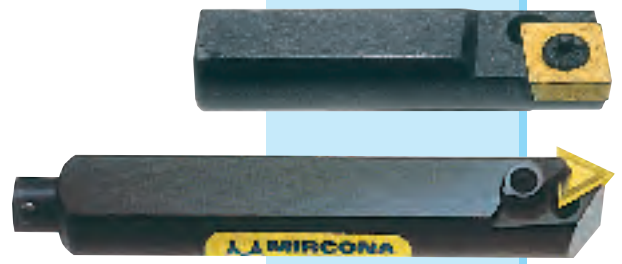


Cartridges for 8 mm ceramic inserts.

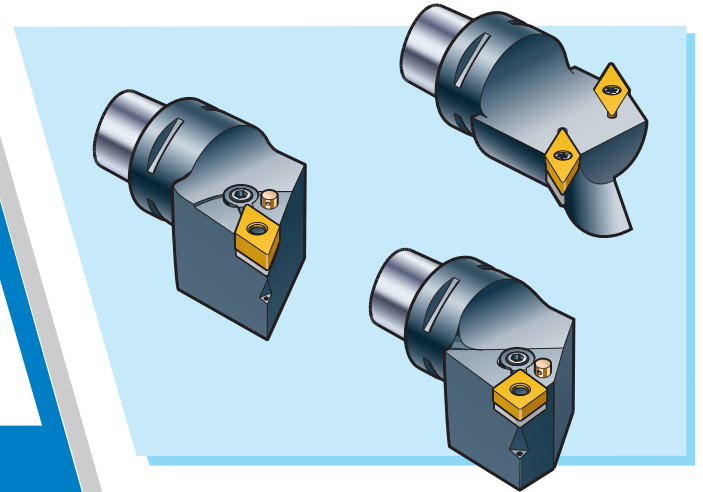
## Cartridges and boring tools for incorporation in special purpose tools



Cartridges with PMC, S or C clamping for incorporation in special purpose tools. Covering most turning, facing and chamfering operations.



Turning tools in polygon coupling performance.



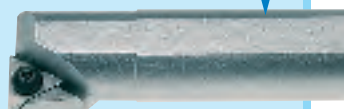
## S tool holders



Positive for external or internal machining.

Carbide shank giving three times the rigidity of a steel shank, thereby eliminating resilience and vibration.

## Solid carbide



## C tool holders



Positive for internal machining.

Positive for external machining.



# Parting-off and g



Type 151F



Type 151RF



Type 151S



Type 156C



Type 151K



Type 153E

MIRCONA are presently offering the market's most extensive range of parting-off and grooving tools embracing tool holders for radial external and internal machining, face grooving, holders and inserts for relief grooves, full-radius grooves, O-ring grooves and circlip grooves. The programme includes cutting widths from 0.5 mm to 12 mm and shank sizes from 10x10 to 50x40 mm.



Type 153S



Type 158S



Type



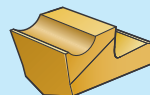
Type 151B

## Inserts for parting-off and grooving

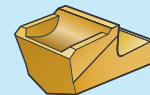
MT



Insert type MT.



Insert type MT with chip-breaker c.



Insert type MS with chip former.

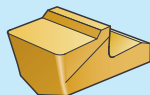


Insert type R/LMS with chip former.

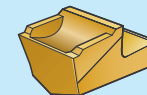
MZ



Insert type MT with chip-breaker b.



Insert type MT with corner radius for O-ring grooves.



Insert type MZ with chip former.



Insert type R/LMZ with chip former.

# grooving tools



Type 151G



Type 155S



Type 156S

The inserts for parting-off and grooving are manufactured in uncoated and CVD/PVD coated carbide, cermet, ceramics, CBN and PCD in a number of different cutting geometries for most applications in different materials.



Type 158E



Type 152S



Type 152S-00



Type 159S

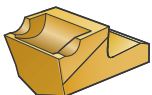


Type 157S-00



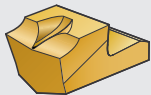
Type 157S

**MP**



Insert type MP with chip former.

**MA**

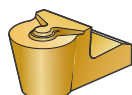


Insert type MA with chip former.



Insert type R/LMA with chip former.

**MB**



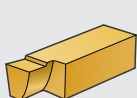
Insert type MB for full-radius grooves, turning and profiling.

**B**



Insert type B for relief grooves.

**E**



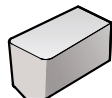
Insert type E with chip-breaker b.

**G**



Insert type G for circlip grooves and smaller groove widths.

**K**



Insert type K in ceramics.

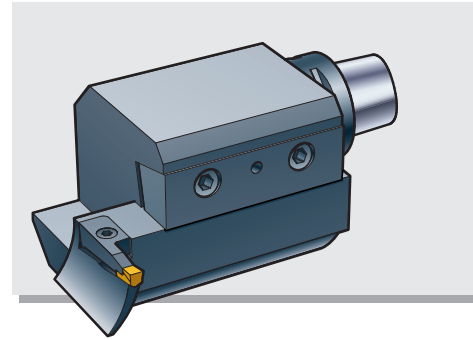


Type 157B

# MIRCONA heavy duty tools for parting-off and grooving in large diameter work-pieces



Sliding blade with exchangeable insert seat.



Adapter for the polygon coupling system enabling use of conventional turning tools.

Side and face cutters from 100 to 315 mm in diameter.



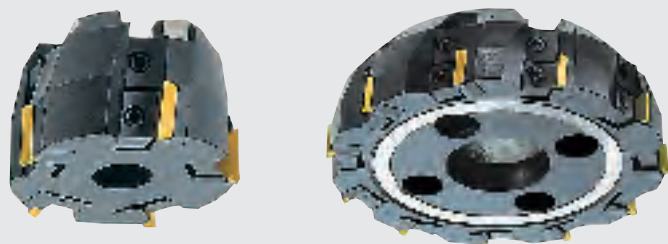
## Milling cutters



Face mills from 32 to 500 mm in diameter.



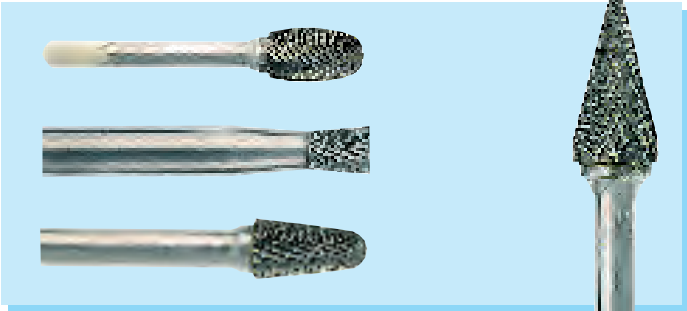
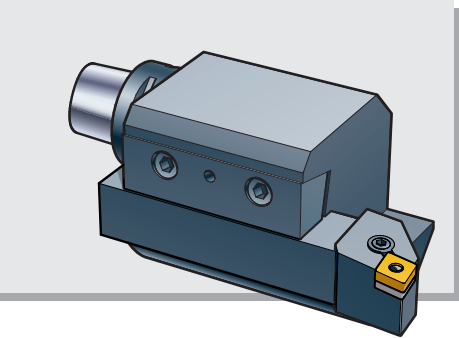
Shank end mills from 5 to 80 mm in diameter.



Square mills from 40 to 250 mm in diameter.

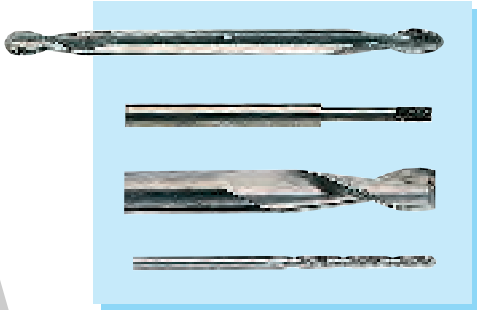


## Tungsten carbide rotary files

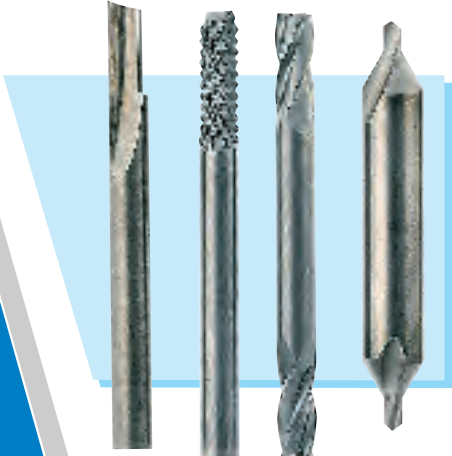


11 different shapes in 5 different cuts.

## Solid carbide tools

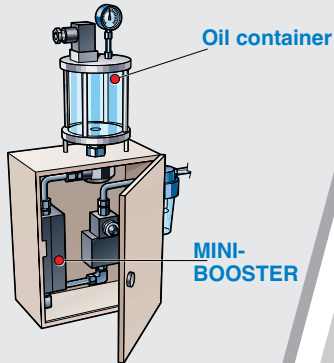
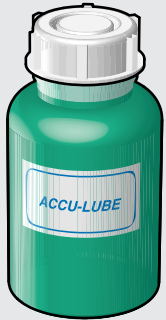
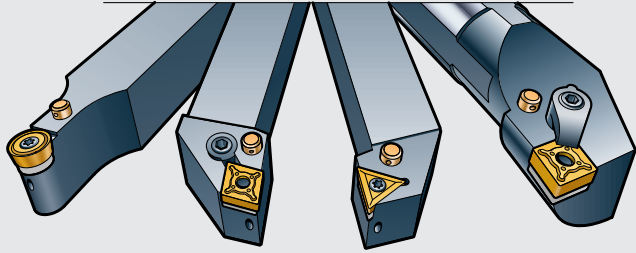
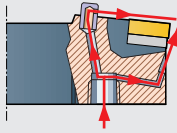


Slot and groove milling cutters from 21 to 250 mm in diameter.



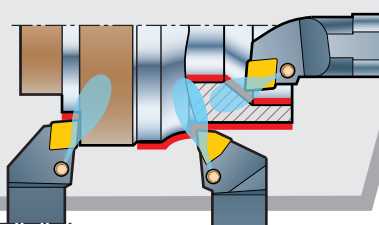
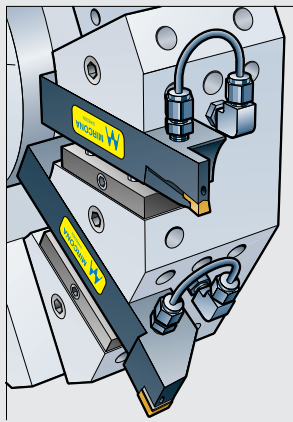
# MIRCONA microlubrication system for turning

**EB**



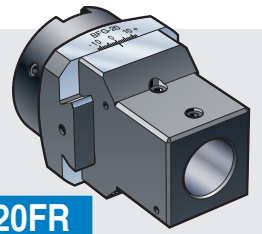
Oil container

MINI-BOOSTER

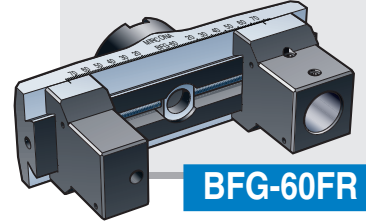


**MIRCONA ACCU-LUBE ECO/MINIBOOSTER** system is based on the use of a vegetable oil that through a MINIBOOSTER is turned into micro-drops of oil and air. The mixture is supplied through the tool holder onto the cutting edge, where it forms an extremely efficient lubrication film.

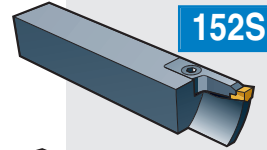
**BFG-20FR**



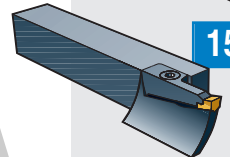
**BFG-60FR**



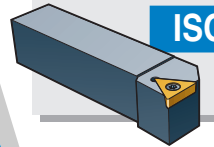
**152S**



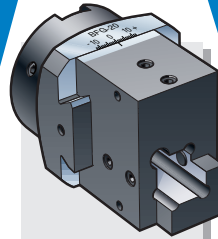
**153S**



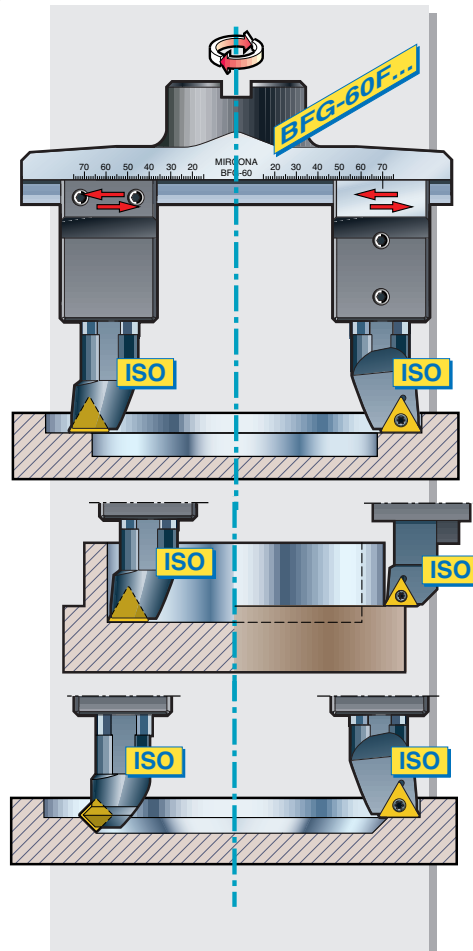
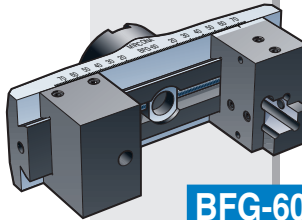
**ISO**



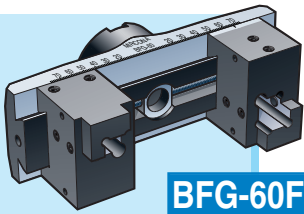
**BFG-20FSQ**



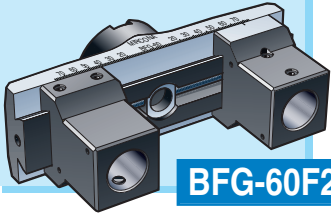
**BFG-60FSQ**



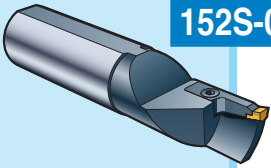
# MIRCONA boring heads BFG-20F.. and BFG-60F...



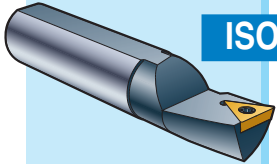
**BFG-60F2SQ**



**BFG-60F2R**



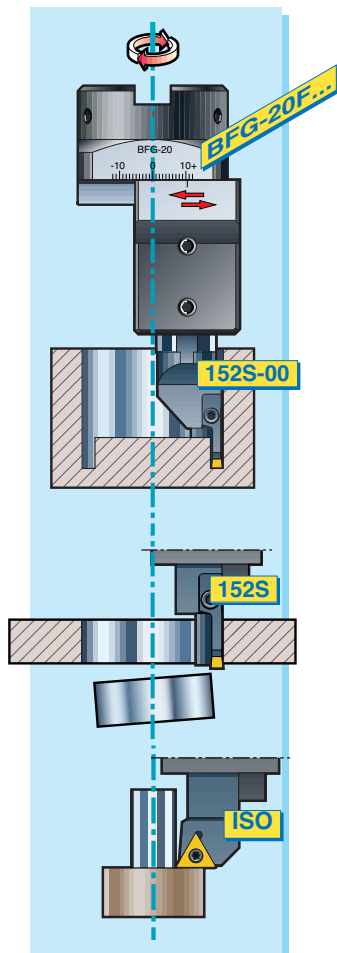
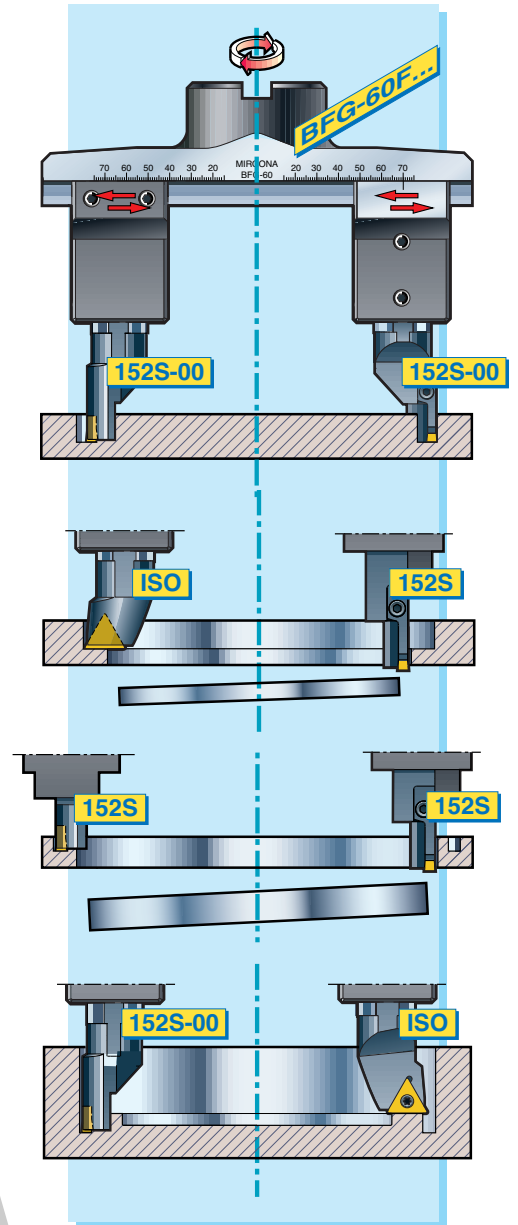
**152S-00**



**ISO**

**BFG-20F.. and BFG-60F..**  
 To save time and cost you can transform your milling machine or machining centre to a "lathe" and essentially increase the productivity by completing the machining in one set-up.

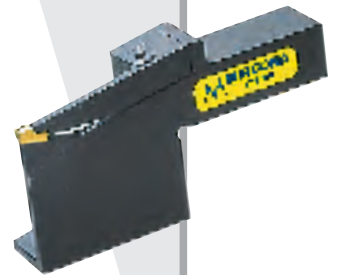
With **MIRCONA** boring head **BFG-20F..** (diameter range < 20 – 60 mm) and **BFG-60F..** (diameter range < 60–190 mm), face grooving, trepanning, external or internal turning can be made with a rotating tool in a milling machine or machining centre.



..... dependant on the machining operation **BFG-20FSQ** or **BFG-60FSQ**, may be mounted with square tool holder shanks (type **152S**, **153S** or an **ISO** tool holder), and **BFG-20FR** or **BFG-60FR**, with round tool holder shanks (type **152S-00** or an **ISO** tool holder).

**BFG-60F2SQ** or **BFG-60F2R** may be mounted with two tool holders simultaneously.

## Special purpose tools



Some of the tools included in this catalogue are patented or patent pending in many countries

MIRCONA

**MIRCONA®**

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Web: [www.mircona.se](http://www.mircona.se) • E-mail: [mircona@mircona.se](mailto:mircona@mircona.se)