

### **Turning**

Extended product range



# **CERATIZIT 3x3** the complete package for the turning of steel

Turning of steel is one of the most frequent machining operations. To meet the many requirements in this field, a wide range of grades, geometries and tools is necessary. Finding

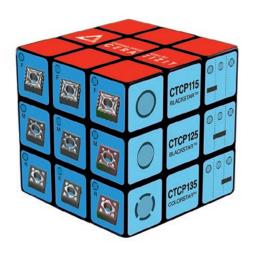
an optimal solution can be a challenge here.



## An intelligent combination - this is how you achieve maximum productivity

Discover our new CERATIZIT 3x3. From now on we offer you an innovative total package for the turning of steel. Choose the most economical solution from an extremely well-structured product portfolio.

For every requirements profile our 3x3 will reliably and quickly tell you the intelligent combination of grade, chip groove and machining parameters. In this way you always receive the best suited tool for achieving maximum productivity. From roughing to finishing you will come a very big step closer to the optimum. Try for yourself! All important information can be found on the following pages...



# CERATIZIT 3x3: 3 grades - 3 chip grooves

With the introduction of the new finishing geometry -F50 the entire steel machining range has been revised. With 3 grades and 3 chip grooves all machining situations for steel are covered.

This user-friendly concept enables quick selection of a suitable combination of grades and geometries for any kind of machining situation.

|   | P15                 | P25                  | - <b>F50</b> CTCP135 |  |
|---|---------------------|----------------------|----------------------|--|
| F | <b>-F50</b> CTCP115 | - <b>F50</b> CTCP125 |                      |  |
| М | -M50                | -M50                 | -M50                 |  |
|   | CTCP115             | CTCP125              | CTCP135              |  |
| R | -M70                | -M70                 | -M70                 |  |
|   | CTCP115             | CTCP125              | CTCP135              |  |

### Your advantages

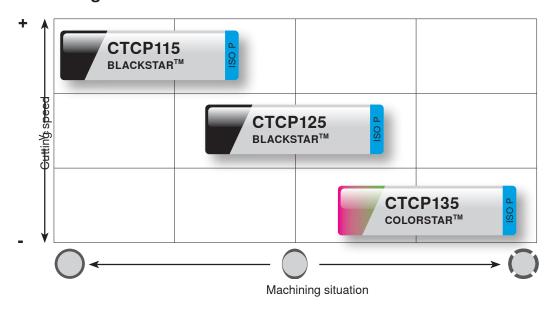
- ▲ Three grades cover all steel machining applications
- ▲ Complete, well-structured programme
- BLACKSTAR<sup>TM</sup> CTCP115 highly wear-resistant grade for high cutting parameters
- ▲ BLACKSTAR<sup>™</sup> CTCP125 universal grade for all applications including slightly interrupted cut

  ▲ COLORSTAR™ CTCP135 – tough grade for interrupted
- cut and difficult conditions
- ▲ Ground contact face

### Your benefits

- ▲ Reduced stock inventory, resulting in lower costs
- ▲ Easy selection of the correct insert
- ▲ For a wide application field in steel machining
- ▲ For maximum process security and consistent quality
- ▲ Higher mechanical stability of the tool holder ensures process security even under extremely difficult machining conditions

## The 3 grades



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## The 3 chip grooves

| -F50<br>the fine-cutting chip<br>groove | F |   |  |
|---|---|---|--|
| -M50<br>the universal chip<br>groove    | М | • |  |
| -M70<br>the stable chip<br>groove       | R | 0 |  |

## **Negative inserts**

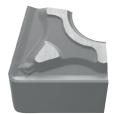
With only 3 chip grooves, the new 3x3 concept focuses on a targeted selection of the right insert: -F50 for finishing, -M50 for medium machining and -M70 for roughing. The user-friendly concept thus offers you perfectly adapted chip grooves for all applications and machining situations in the field of steel turning.

### -F50



- ▲ Chip groove for finish-machining of steels and stainless steels
- ▲ Very good chip control
- ▲ High surface quality

### -M50



- ▲ Medium machining
- First choice for steel machining
- Universal application
- ▲ Wide application range

### -M70

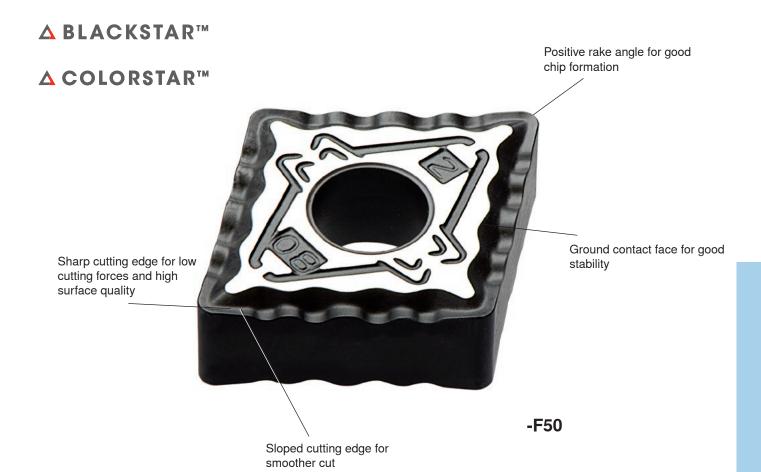


- ▲ Light to medium-rough machining
- ▲ Interrupted cut
- ▲ Cast skin and forging skin
- ▲ Blanks and forged parts

### The new -F50

The finishing geometry -F50 for steel and stainless steel is new in the range and completes CERATIZIT 3x3. It offers excellent chip control together with a high surface quality. The ground contact face increases stability. The sharp cutting edge

guarantees a smooth cut and low cutting forces.



## A practical example

Work piece: bearing / 100Cr6

| Cutting data           | Competitor | CERATIZIT  |  |
|------------------------|------------|------------|--|
| Geometry               | -          | -F50       |  |
| Grade                  | -          | CTCP125    |  |
| v <sub>c</sub> (m/min) | 250        | 300        |  |
| f (mm/rev)             | 0,2 - 0,3  | 0,3 - 0,35 |  |
| a <sub>p</sub> (mm)    | 1          | 1          |  |
| Quantity               | 200        | 300        |  |

#### Quantity

|       |  | Competitor |  | CERATIZIT |  |  |  |
|-------|--|------------|--|-----------|--|--|--|
| 300 — |  |            |  |           |  |  |  |
| 300 — |  |            |  |           |  |  |  |
| 250 — |  |            |  |           |  |  |  |
| 200 — |  |            |  |           |  |  |  |
| 200 — |  |            |  |           |  |  |  |
| 150 — |  |            |  |           |  |  |  |
| 100 — |  |            |  |           |  |  |  |
| 100   |  |            |  |           |  |  |  |
| 50 —  |  |            |  |           |  |  |  |
| 0     |  |            |  |           |  |  |  |
| · –   |  |            |  |           |  |  |  |

