

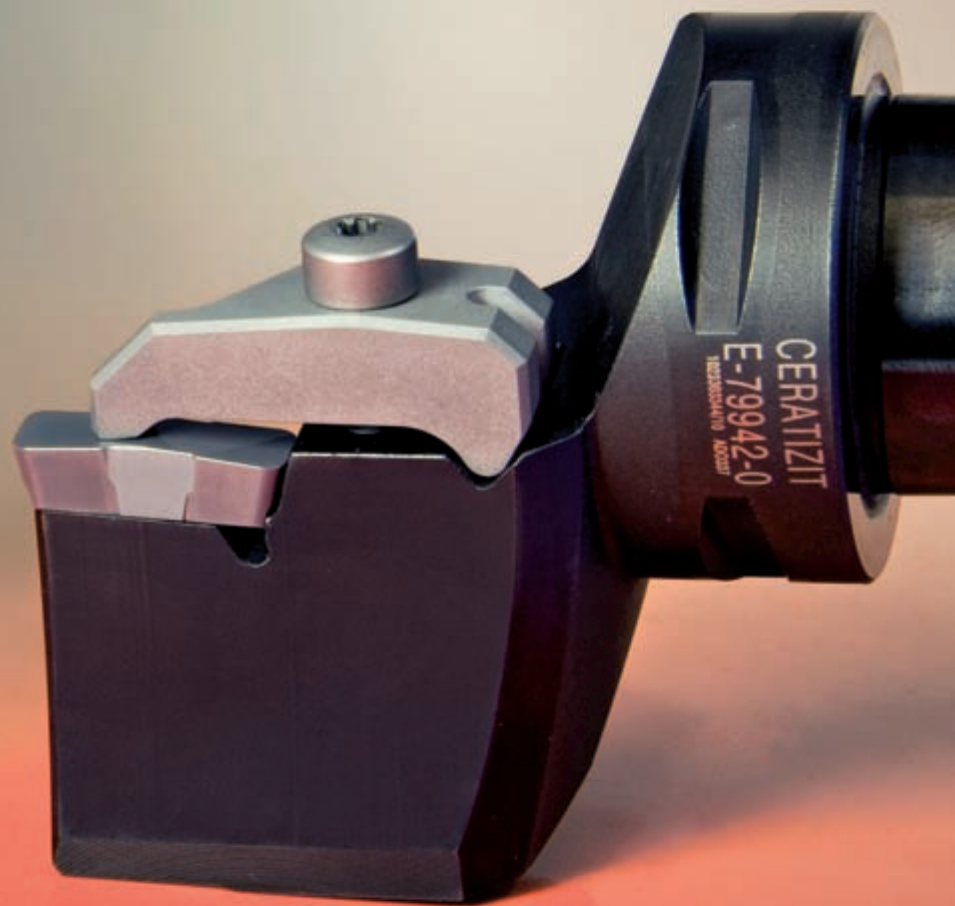
New | s

# CX24 grooving system for brake discs



hard material matters

CERATIZIT



hard material matters

# Grooving and copy turning

Turning or plunging the compensating groove on the brake disc is an important and demanding machining process which requires an extremely stable tool to guarantee process security. The cutting speed is similar for ceramic machining, the feed rates are in the standard turning range.

The development of the CX24 grooving system first of all focused on the high demands of continuous production which ensures that the concept guarantees maximum stability combined with long tool life and process security. The system is suitable for standard tools with square shank as well as for modular tooling with standardized interfaces like HSK, UTS, Capto and others. Thanks to the positive lock also transverse forces are perfectly compensated and the tools may be applied for both grooving and profile turning. This does not only apply for brake disc machining but also for all grooving operations with cast iron.

## Industries, applications

- Automotive
- General mechanical engineering
- Roll manufacturers
- Forging companies
- Aerospace

## Materials

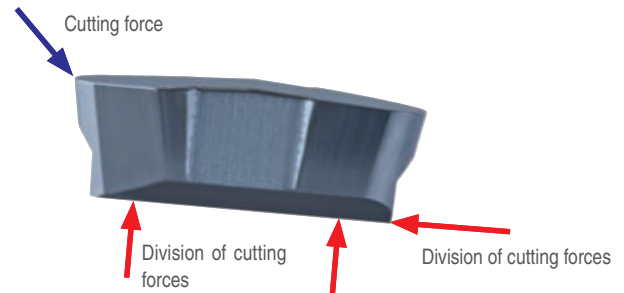
- Cast iron in general
- Grey cast iron
- Spheroidal cast iron
- Chilled castings
- Malleable iron

## Typical components

- Brake discs
- Brake drums
- Turned cast iron components with axial and radial grooves

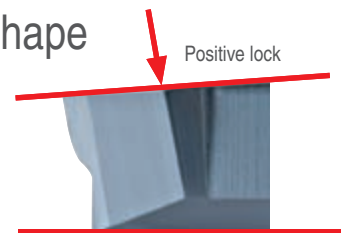
# CX24 – unique selling propositions

## Inclined mounting position



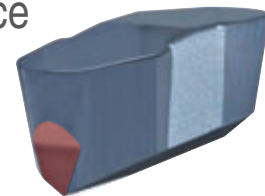
- Division of cutting forces
- Cutting force stabilizes insert position
- Tried and tested for CERATIZIT standard grooving solutions GX24

## Wedge shape



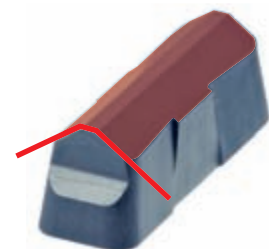
- Positive lock
- Active clamping of the insert for backwards copy operations

## Contact face



- Contact face balances cutting forces
- Tried and tested for CERATIZIT GX24 standard grooving solutions
- Secure location also for profile grooving inserts

## 110° prism



- Stable insert position even with high transverse forces

## □ PRODUCT FEATURES - CHARACTERISTICS

# CX24



- Positive lock
- Lateral copy operations with  $a_p = 3$  mm and  $f = 0.6$  mm
- Two width classes for tool holders: 5–7 mm and 7–10 mm grooving width
- Easy handling
- Standardized length and height of grooving inserts



- Grooving and profile grooving with the same tool holder
- All grooving inserts with two cutting edges
- Copy turning and grooving with cutting data for ceramic machining
- Standard grooving insert is able to produce several groove profiles economically
- Reduced stock keeping, short response times

## □ CUSTOMER BENEFITS

# Application **advantages**

## Component quality

- Stable grooving system without vibration
- Surface quality and dimensional accuracy

## Process security

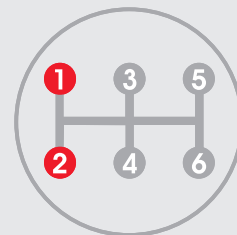
- Unique
- Reduced tool wear
- Monobloc tool holders are more stable than the modular system

## Economy

- Copy turning and grooving with only one system
- Fewer tool changes necessary
- High feed rates
- Lateral copy turning
- Backward copy operations

## □ VALUES

# CERATIZIT CORPORATE VALUES



- 1** The views and focus of our business partners matter
  - Instead of talking product with customers, we work on real solutions for business partners.
- 2** Innovative and flexible thinking matters
  - We have the power to challenge state-of-the-art technologies and the courage to develop intelligent alternatives.
  - Our speed of thought and decisive actions give us a leading edge.

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## CERATIZIT

You may request more detailed information at [www.ceratzit.com](http://www.ceratzit.com)

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