

» CARBIDE AND COATINGS

# **CONVEYING MIXING EXTRUDING**

**Consistent. Lasting. Dimensional stability.**

**DURIT**  
HARTMETALL





# » CARBIDE TECHNOLOGY

Parts, tools and components made of cemented carbide are **the ultimate in wear resistance and longevity** and **ensure utmost versatility**. DURIT carbide solutions stand up to the toughest demands.

## » DEDICATED TO CARBIDE

**Carbide from a single source**—from blanks to high-precision final products. DURIT produces **customized parts** and realizes **individual shapes** as well as **complex geometries**.

## » WE OFFER FULL-SERVICE CARBIDE

### HARDFACTS

#### » DURIT HARTMETALL

##### » SINCE 1982

Successful and solution-oriented

##### » OVER 500 EMPLOYEES

Worldwide

##### » MORE THAN 60 CARBIDE GRADES

For wear protection and metal forming

##### » 100 % COATING EXPERTISE

HVOF, APS, EAWS, Laser Cladding, PVD and CVD



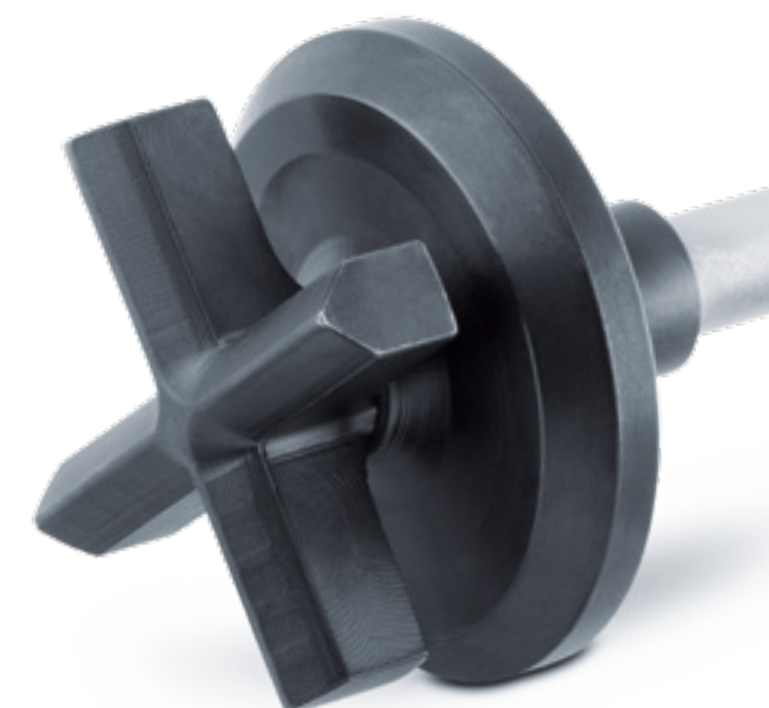
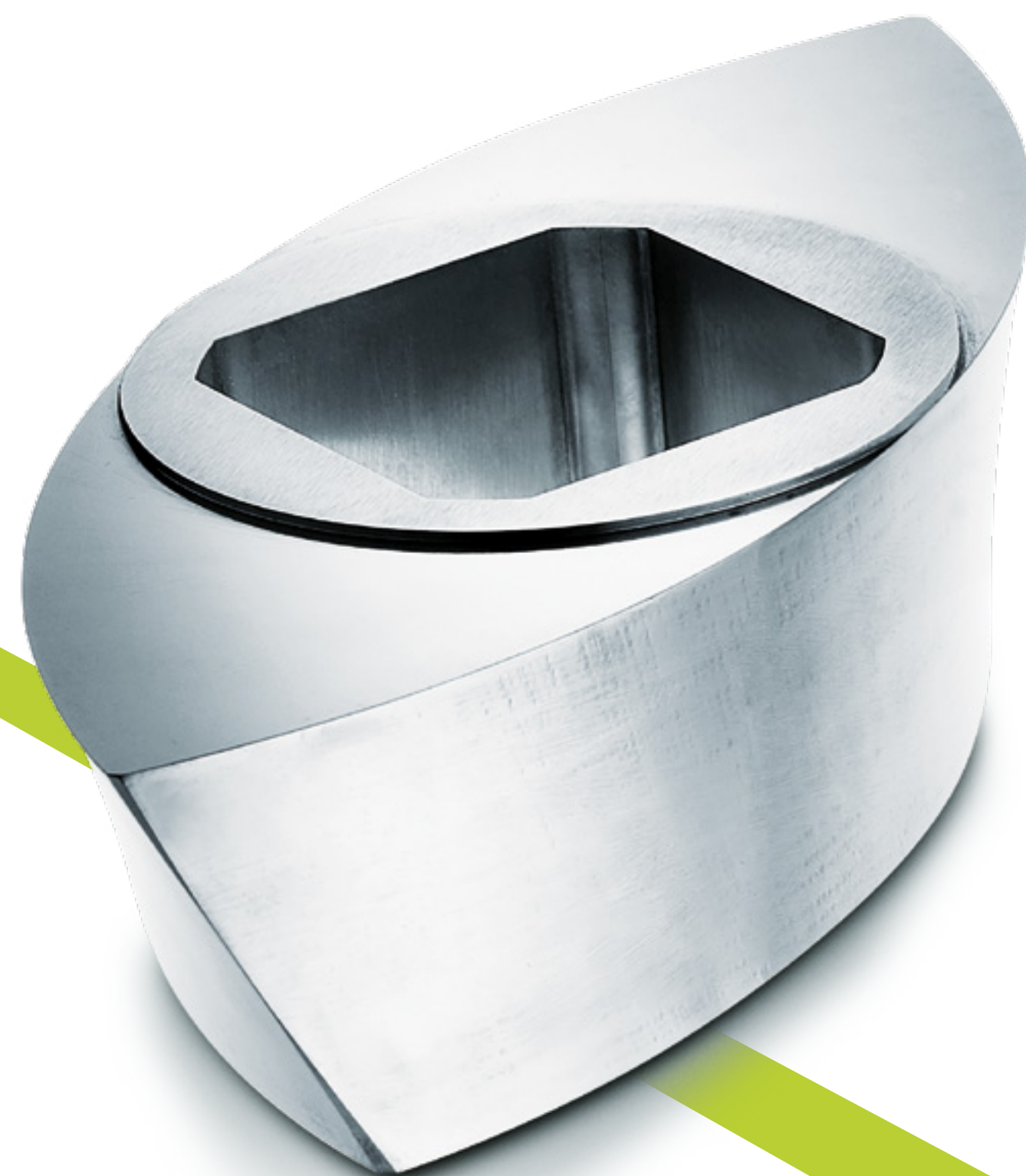
# » WEAR PROTECTION FOR CONVEYING, MIXING, EXTRUDING

Cemented carbide components and tools are successfully applied in many processes to **prevent premature wear**, including the field of conveying, mixing and extruding, which plays an important role in many different industry sectors. DURIT has **excellent references** in this special area and creates first-grade, consistent solutions for all requested applications.

## » WE SOLVE WEAR PROBLEMS

**Consistency, longevity and dimensional stability** are essential demands in this field of application. Cemented carbide offers the perfect solution for many of these challenging applications.

## » WITHSTANDS MOST EXTREME DEMANDS



### Products ::

extruder screws · augers · screw segments ·  
mixer paddles · linings · sleeves ·  
perforated and multi-hole plates ·  
mouthpieces · shaping rolls · scrapers ·  
kneading bolts

### Typical applications ::

ceramics · plastics industry · paints and  
coatings · concrete industry for roof tiles ·  
food industry · composites and more





### Selection of application-specific carbide grades ::

GRADE	Composition	Binder (%)	Grain size	Hardness (HV30)	Fracture toughness (MPa·m <sup>1/2</sup> )
GD08F	WC-Co	8,00	submicron	1625	10
GD13F	WC-Co	10,00	submicron	1540	12
GD10	WC-Co	6,00	medium	1600	10
GD15	WC-Co	8,00	medium	1460	12
GD20	WC-Co	10,00	medium	1350	15
GD30	WC-Co	15,00	medium	1150	15,5
GD10N	WC-Ni	7,00	fine	1530	10
GD20N	WC-Ni	9,00	fine	1400	10
GD10NC	WC-Ni/Cr	6,80	fine	1630	11,5



# » COATING TECHNOLOGY

DURIT coatings **distinctly increase resistance** of tools, components and parts. Our experts realize **high-tech solutions** that stand out through highly specific properties.

## » MORE EFFECTIVE AGAINST WEAR

In addition to solid cemented carbide, advanced coatings achieve optimized results, especially on large-volume parts. **Thermal spray coatings** and **laser cladding** perfect various high-precision components. In many cases DURIT coatings are the perfect choice to **increase productivity**.

## » TARGETED IMPROVEMENT OF PRODUCTIVITY



» [durit.com](https://durit.com)

# LASER CLADDING » Alloys

Weldable powders (carbides, metals)—comparable with Stellite, Triballoy, Colmoly, Hastalloy, Inconel or similar

## HVOF High Velocity Oxygen Fuel

### » Carbides

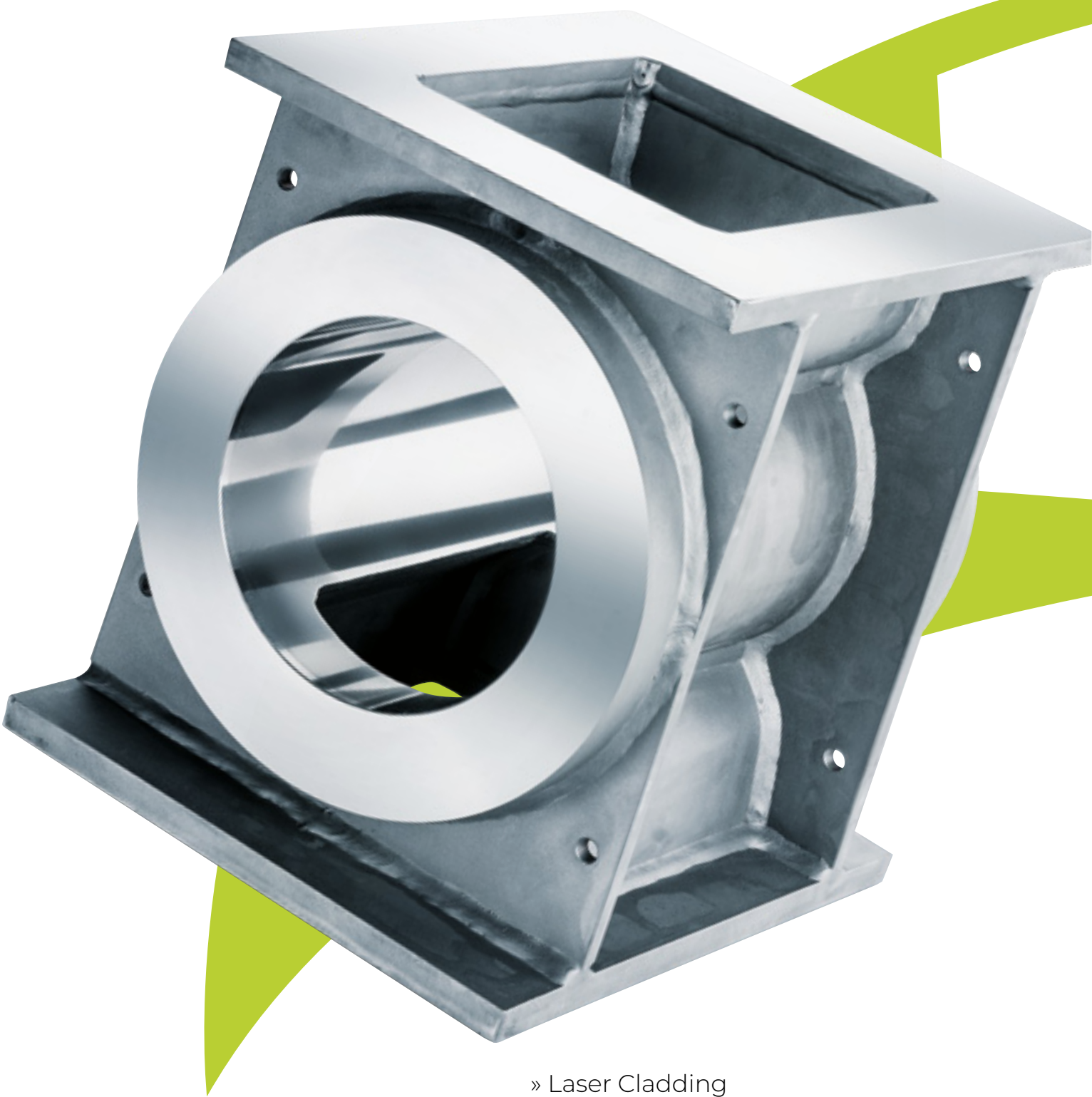
WC/Co

WC/Co-Cr

WC/Ni

WC/NiCrBSiFe

Cr<sub>2</sub>C<sub>3</sub>/NiCr



» Laser Cladding





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**takes you to EXTREMES**

