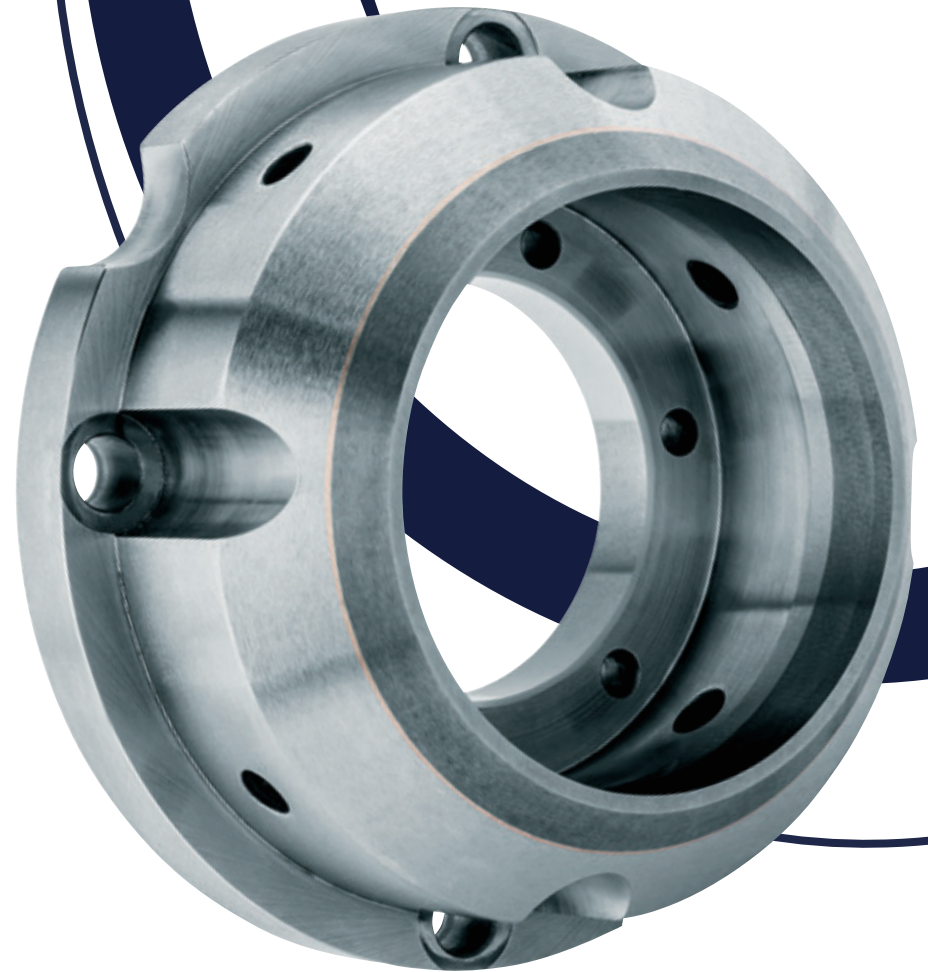


» CARBIDE AND COATINGS

# **SHEET METAL AND METAL PACKAGING**

**Highest precision. Dimensional stability.**

**DURIT**





## » 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



## Products ::

cut rings · cut punches · hold-down rings · center blocks · draw rings · flanging rollers · button inserts · sizing punches · slitter knives · necking rings · seaming segments · deep-drawing dies and punches · flanging punches · wall-iron dies · blank holders

## Typical applications ::

packing · can and lid production · punching and forming technology

## » WEAR-RESISTANT TOOLS AND COMPONENTS

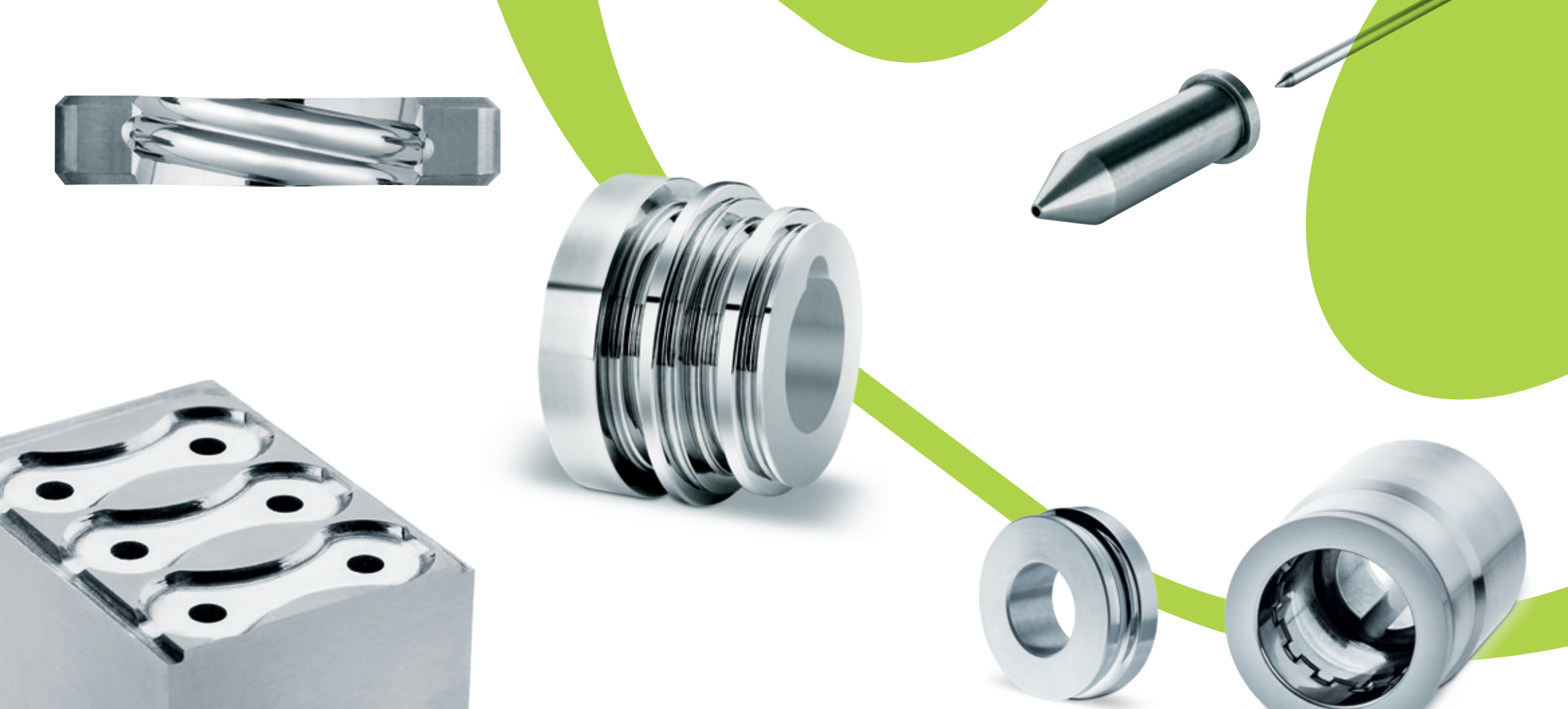
The excellent properties of cemented carbide tools are evident—especially in punching, cutting, flanging, drawing and calibrating processes. The applied components meet the **highest requirements in precision and dimensional stability**. Cemented carbide **increases the profitability** of machines and systems by a multiple.

### » WE SOLVE WEAR PROBLEMS

Sheet metal packaging, cans, lids or transformer sheets are typical areas in which **DURIT is successful**. The **individual high-tech solutions** have been tried and tested for years: They solve challenges in daily practice and **minimize wear**—in the **long term**.

### » WITHSTANDS MOST EXTREME DEMANDS





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

<b>GRADE</b>	<b>Composition</b>	<b>Binder (%)</b>	<b>Grain size</b>	<b>Hardness (HV30)</b>	<b>Fracture toughness (MPa·m<sup>1/2</sup>)</b>
<b>GD13F</b>	WC-Co	10,00	submicron	1540	12
<b>GD16F</b>	WC-Co	13,00	submicron	1390	13
<b>GD18F</b>	WC-Co	15,00	submicron	1285	14
<b>GD20</b>	WC-Co	10,00	medium	1350	15
<b>GD25E</b>	WC-Co/Cr	15,60	submicron	1370	15
<b>GD30</b>	WC-Co	15,00	medium	1150	15,5
<b>GD40</b>	WC-Co	18,00	medium	1025	16

# » COATING TECHNOLOGY

Coatings by DURIT make tools and components for special applications significantly **more resistant**. Our experts realize **high-tech solutions** that are characterized by special properties.

## » MORE EFFECTIVE AGAINST WEAR

In some areas of application refinement of cemented carbide tools with modern coatings can realize further optimization. In this way, **PVD** and **CVD coatings** provide the perfect finishing for high-precision components. DURIT coatings are in many cases the best method to **increase productivity**.

## » TARGETED IMPROVEMENT OF PRODUCTIVITY

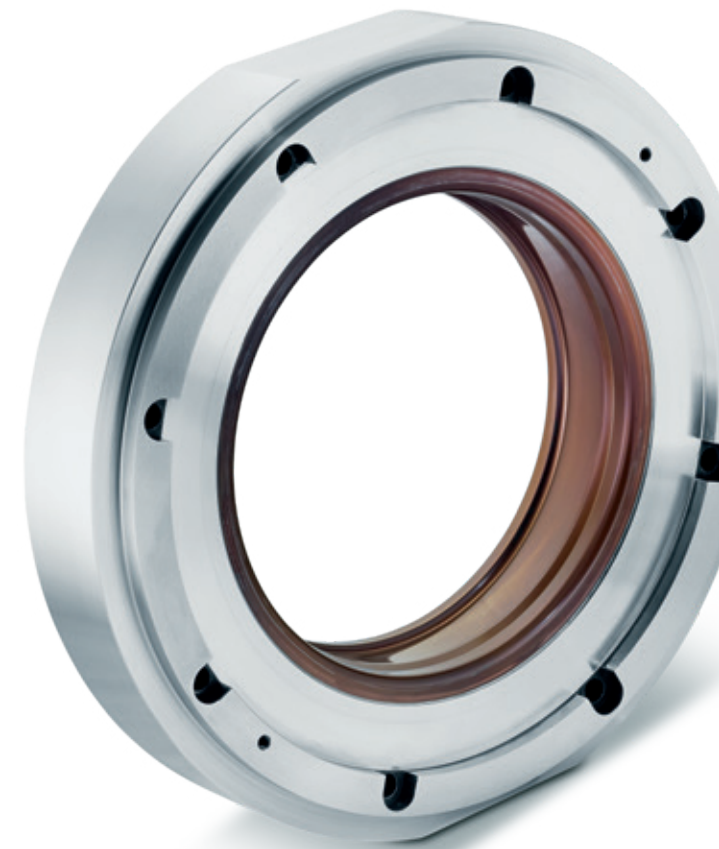


» PVD DiExtraUltra®



» PVD UltraImpact EXCELL®

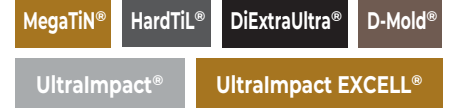
» CVD TiC/TiN



» PVD D-Mold®

## PVD

**Physical Vapour Deposition**  
PVD represents protection, optimization and refinement—for targeted efficiency



## CVD

**Chemical Vapour Deposition**  
CVD represents good sliding properties, a low coefficient of friction and high hardness



» **DURIT METALURGIA PORTUGUESA  
DO TUNGSTÊNIO, LDA.**

Zona Industrial – Arruamento C  
3854-184 Albergaria-a-Velha  
Portugal  
T +351 234 529 810  
comercial@durit.pt

[durit.com/pt](http://durit.com/pt)

» **DURIT IBÉRICA, S.L.**

Calle Rozabella 6, EDIF. París  
1A Planta, Oficina 20  
28290 Las Rozas de Madrid  
España  
T +34 916 400 911  
duritiberica@durit.es

[durit.com/es](http://durit.com/es)

» **DURIT BRASIL LTDA**

Via de Penetração III, 519  
Centro Industrial de Aratu  
43700-000 Simões Filho/Bahia  
Brazil  
T +55 71 2106-0544  
comercial@durit.com.br

[durit.com.br](http://durit.com.br)

» **DURIT HARTMETALL GMBH**

Linderhauser Straße 139  
D-42279 Wuppertal  
Germany  
T +49 202 55 109 0  
F +49 202 55 109 25  
info@durit.de

[durit.com](http://durit.com)

**takes you to EXTREMES**

