

» 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

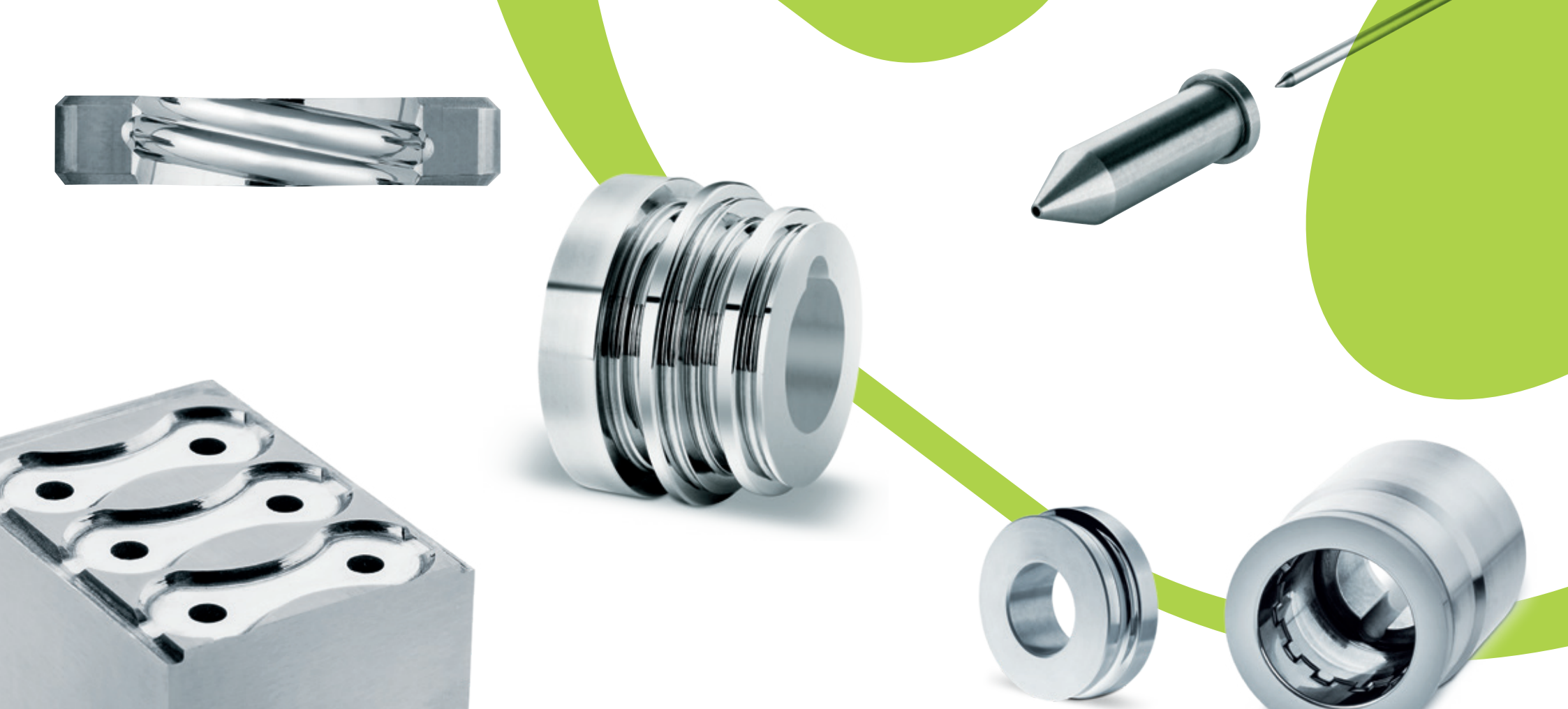
The excellent properties of cemented carbide tools are evident—especially in punching, cutting, flanging, drawing and calibrating processes. The applied components meet the **highest requirements in precision and dimensional stability**. Cemented carbide **increases the profitability** of machines and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

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

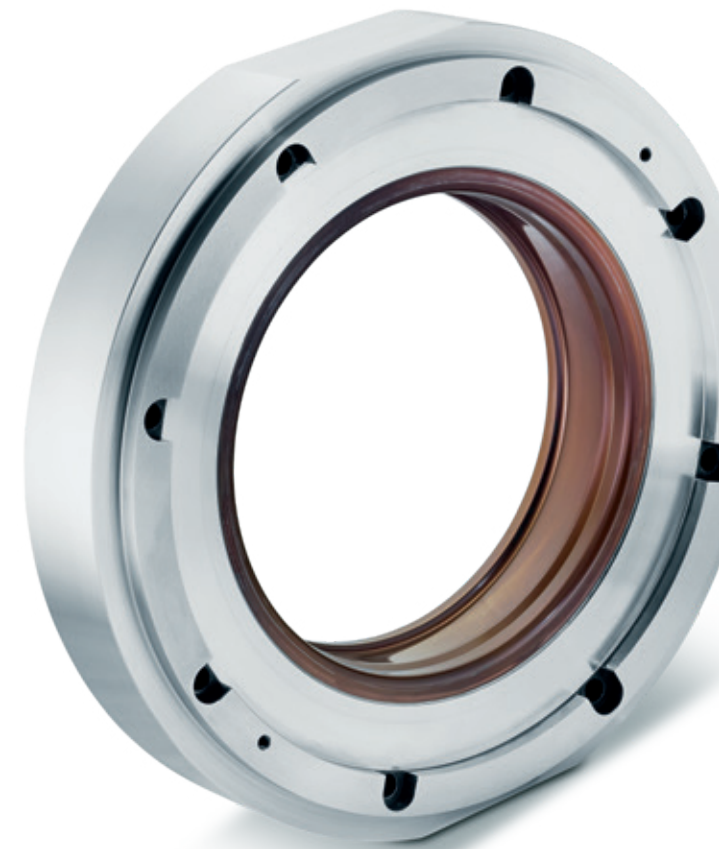


» PVD DiExtraUltra®



» PVD UltraImpact EXCELL®

» CVD TiC/TiN



» PVD D-Mold®

PVD

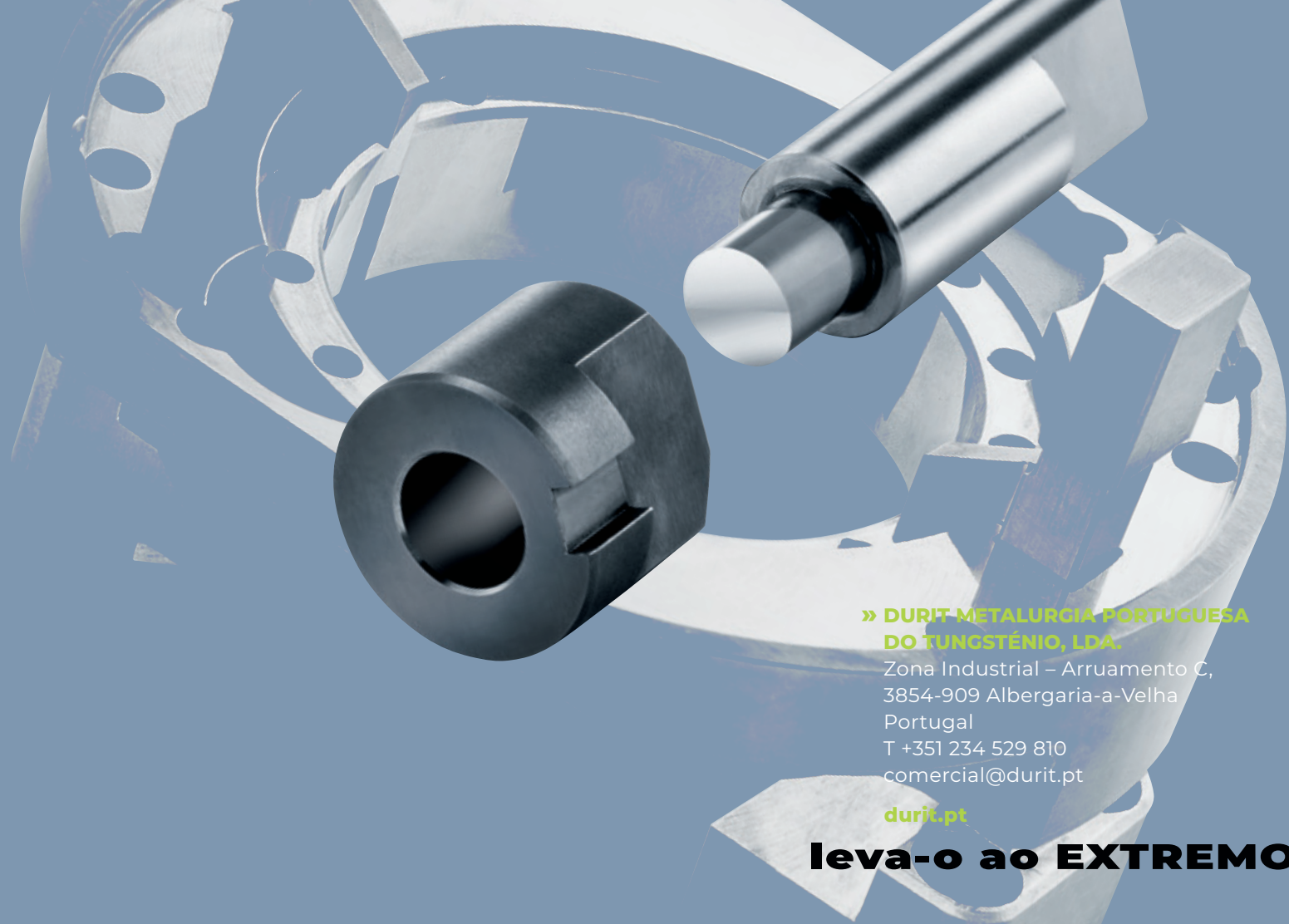
Physical Vapour Deposition
PVD represents protection, optimization and refinement—for targeted efficiency



CVD

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





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

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