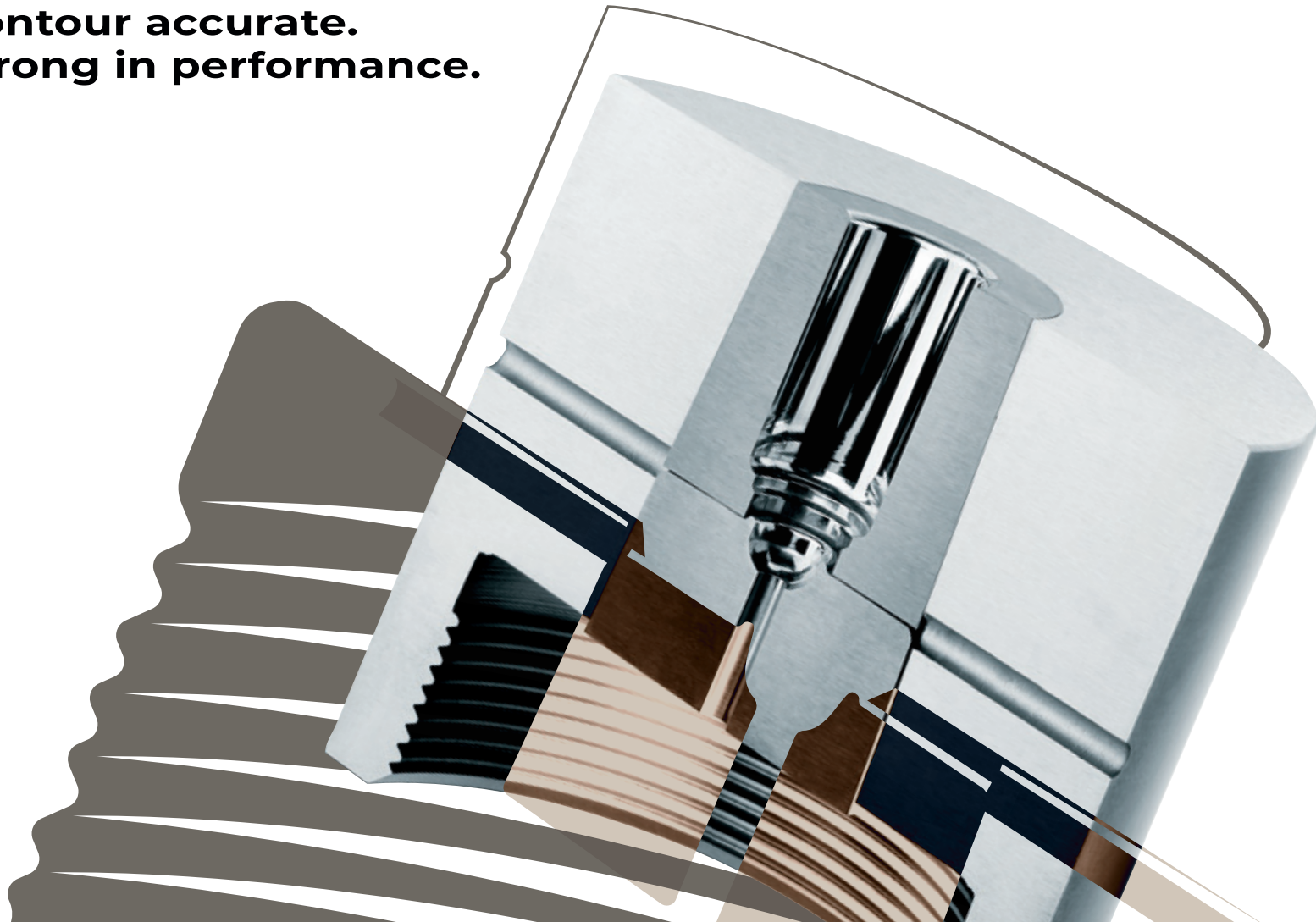


» CARBIDE AND COATINGS

# COLD HEADING AND FORMING TECHNOLOGY

**Impact resistant.  
Contour accurate.  
Strong in performance.**

**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.

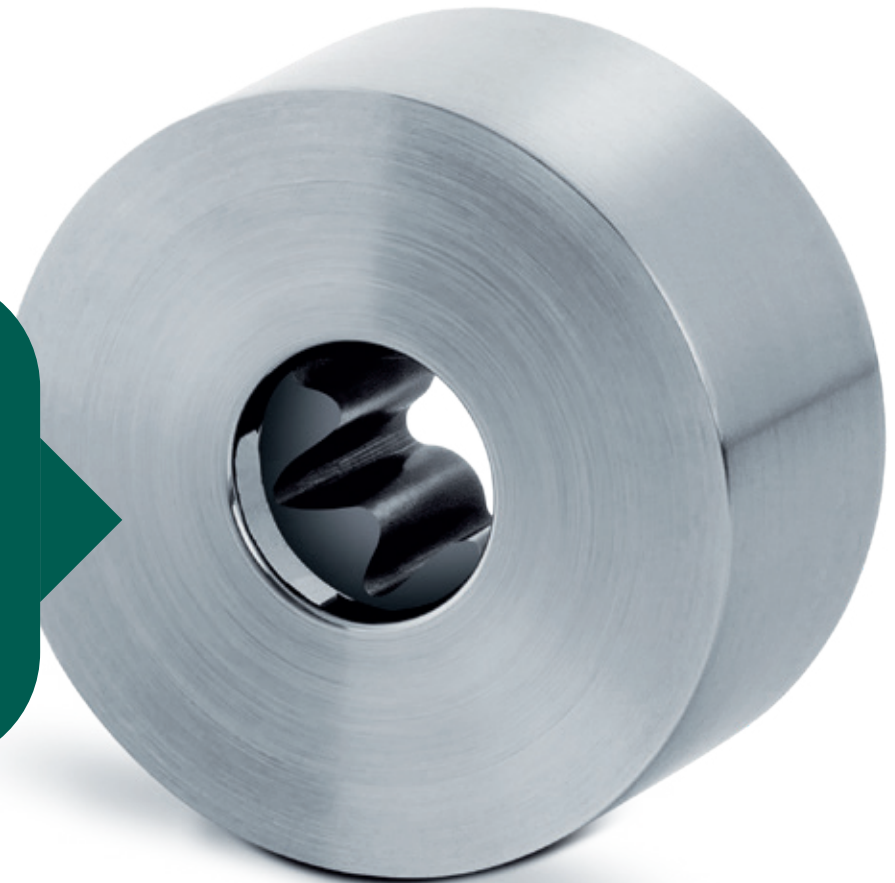
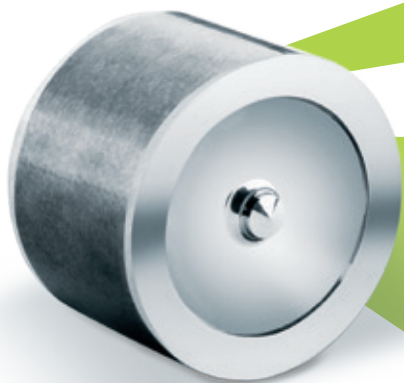
## » DEDICATED TO CARBIDE

**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



# » WEAR-RESISTANT TOOLS FOR FORMING TECHNOLOGY

In forming technology, things are happening in quick succession. The development and manufacture of cold impact tools for the production of fasteners require a lot of experience and **maximum precision**. Together with our customers we develop and **construct individual and specific tools**.

## » WE SOLVE WEAR PROBLEMS

Screws, rivets, springs and more: Complex geometries, tightest tolerances or extreme forming processes—the demands in this area of application are enormous. **Carbide solutions by DURIT increase the profitability of production processes—**by a multiple.

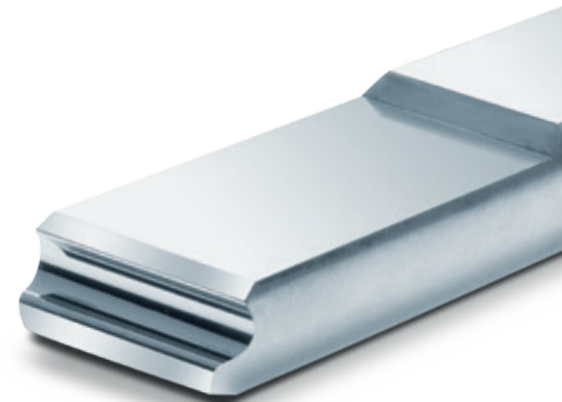
## » WITHSTANDS MOST EXTREME DEMANDS

### Products ::

cut-off blades and bushings · reduction dies · first and second headers · extrusion dies · punches · head press dies · hexagonal and segmented tools · clamping and cutting jaws · straightening rollers · winding mandrels · chocks · wire guides · wire rolls

### Typical applications ::

production of screws · bolts and rivets · roller bearing industry · production of chains and springs · automotive and aerospace





### 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>
GD13F	WC-Co	10,00	submicron	1540	12
GD16F	WC-Co	13,00	submicron	1390	13
GD18F	WC-Co	15,00	submicron	1285	14
GD30	WC-Co	15,00	medium	1150	15,5
GD40	WC-Co	18,00	medium	1025	16
GD45	WC-Co	22,50	medium	920	18
GD50	WC-Co	25,00	medium	840	22
GD60	WC-Co	27,00	medium	770	25

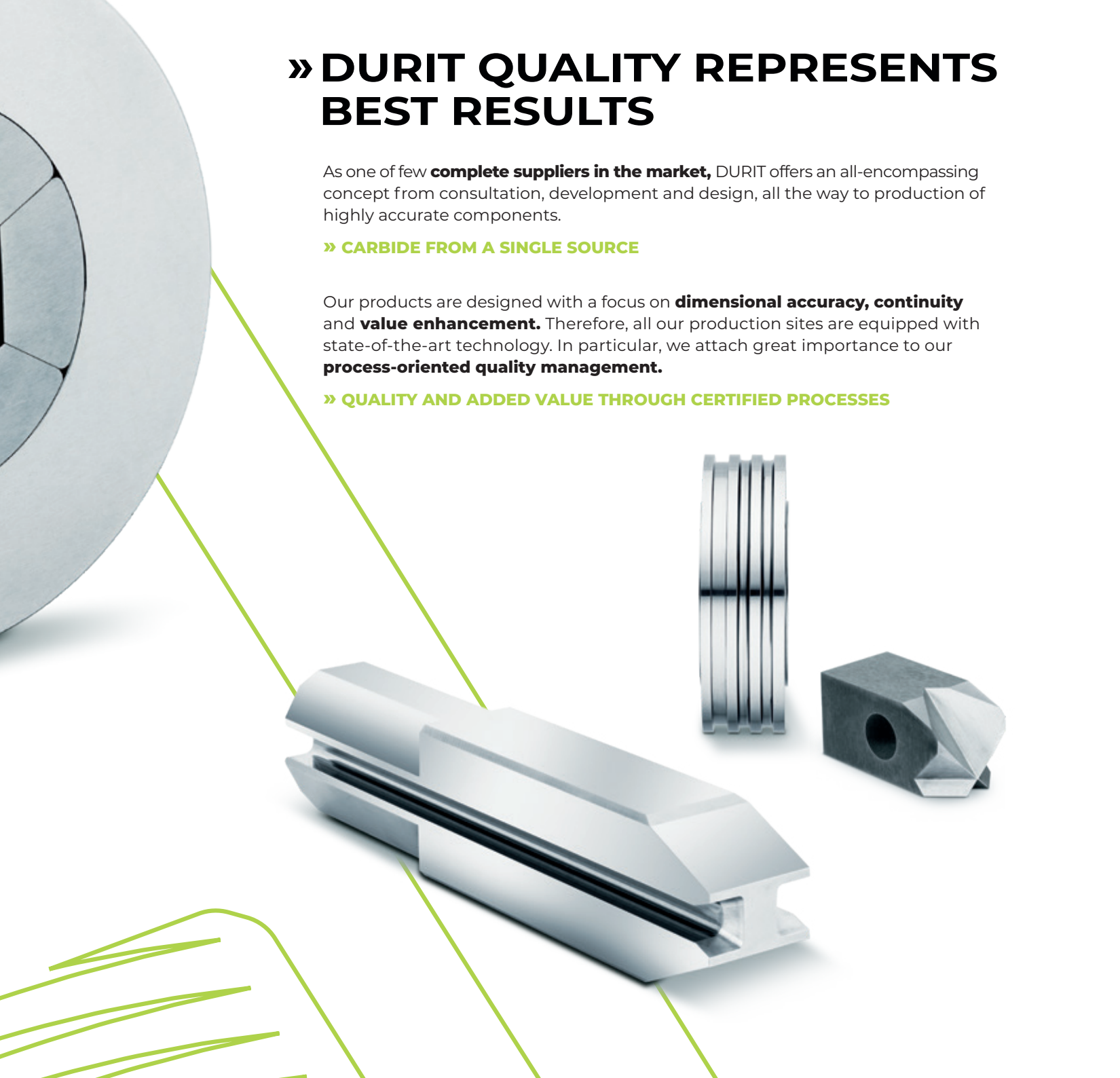
# » DURIT QUALITY REPRESENTS BEST RESULTS

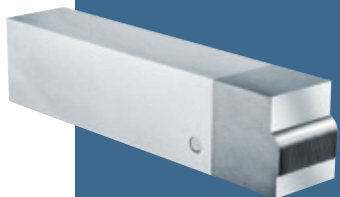
As one of few **complete suppliers in the market**, DURIT offers an all-encompassing concept from consultation, development and design, all the way to production of highly accurate components.

## » CARBIDE FROM A SINGLE SOURCE

Our products are designed with a focus on **dimensional accuracy, continuity** and **value enhancement**. Therefore, all our production sites are equipped with state-of-the-art technology. In particular, we attach great importance to our **process-oriented quality management**.

## » QUALITY AND ADDED VALUE THROUGH CERTIFIED PROCESSES





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**takes you to EXTREMES**

