

# Ejector pins & probe tips

Groz-Beckert specializes in manufacturing highly accurate precision parts made from tungsten carbide, ceramics and steel – and has for over 20 years.

### **GROZ-BECKERT**

#### **Groz-Beckert KG**

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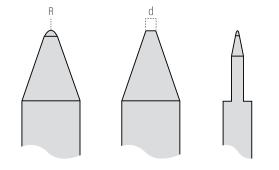
In addition to traditional round punches, Groz-Beckert CPC also produces purpose-built items. Cutting-edge manufacturing technologies can produce customer-specific special solutions. In addition to tungsten carbide, other materials such as steel and ceramic can also be machined. The application fields are varied and include measurement technology, the electrical industry and tool as well as machine shop.

With the support of development, process engineering and laboratory as early as the product development phase, Groz-Beckert can map out the entire process from the idea to the manufacture of the product.



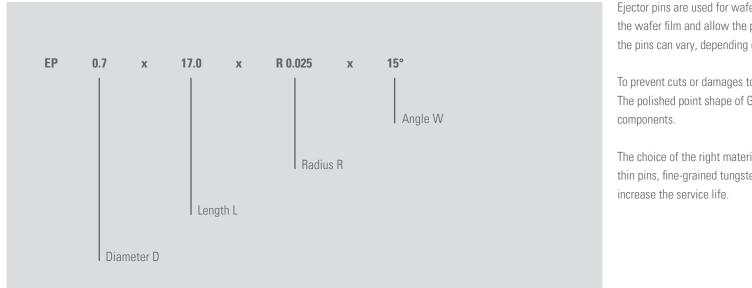
| Nominal diameter  | D  | 0.3 mm–2.5 mm  |
|-------------------|----|--|
| Point angle       | W  | 10°-140°   |
| Total length      | L  | 5 mm—135 mm  |
| Point radius      | R  | from 0.010 mm  |
| Platform diameter | d  | from 0.02 mm   |
| Finish quality    | Rz | 0.2–0.6  |
| Coating           |    | DLC, TiN, TIAL   |
| Quantities        |    | customer-specific  |
| Material          |    | tungsten carbide, (finest grain, ultrafine grain) steel, ceramic |

The above values may deviate with specific dimensions and materials. Further dimensions, tolerances and materials are available on request.



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### Identification of Groz-Beckert ejector pins



Ejector pins are used for wafer production. They serve to push the components off the wafer film and allow the pick-up tool to lift them up. The number and shape of the pins can vary, depending on the product.

To prevent cuts or damages to the wafer film, a precisely executed point is required. The polished point shape of Groz-Beckert products guarantees gentle handling of the

The choice of the right material is critical to avoid point disintegration. For fine and thin pins, fine-grained tungsten carbide is recommended. Special coatings can

| Overview of the most important parameters — | Diameter D | Length L | Radius R | Angle W |
|---|------------|----------|----------|---------|
|   | 0.7 mm     | 17 mm    | 0.013 mm | 15°     |
|   | 0.7 mm     | 17 mm    | 0.025 mm | 15°     |
|   | 0.7 mm     | 17 mm    | 0.050 mm | 10°     |
|   | 0.7 mm     | 18 mm    | 0.050 mm | 10°     |
|   | 0.7 mm     | 18 mm    | 0.080 mm | 10°     |



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