Bodymaker, cupper, and necker tooling for manufacturing drawn & wall ironed cans
Hyperion Materials & Technologies offers expertly engineered cemented carbide, tungsten carbide, diamond, and cubic boron nitride used in a wide range of tailor-made material-removal and wear-protection applications, process line tools, and metal forming products. The company has advanced global production capabilities in powder processing, sintering, high-pressure high-temperature synthesis, and finishing. All materials are developed and manufactured in-house. Main areas of business include metal cutting, mining, oil & gas, process lines, wear applications, and powders and abrasives.
BARCELONA - GLOBAL COMPETENCE CENTER

We are more than ever committed to the canmakers. Hyperion offers a full range of tooling for 2-piece metal containers, from front to back end of the production lines. Products include cupper, bodymaker, and necker tooling.

HYPERION - LEADING SUPPLIER OF PREMIUM TOOLING

Hyperion has invested in a Can Tooling Global Competence Center for 2-piece metal containers. Hyperion, known as a leading supplier of premium tooling, has equipped its plant in Barcelona to create an agile manufacturing setup and to fully support customers in every aspect of product development and increased productivity. Hyperion has received the following certifications: ISO 9001:2015, ISO 14001:2015, and OHSAS 18001:2007.

- Integrated manufacturing process from ready-to-press cemented carbide powder to the finished part
- State-of-the-art manufacturing and quality control equipment
- Complete product range including cupper press, bodymaker, and necker tools
- Latest Hyperion materials, grinding technology, and metrology
- Over 20 years of experience with manufacturing of can tooling and supporting global customers.

In addition, a new state-of-the-art R&D carbide laboratory is located at our Barcelona production facility. This laboratory allows Hyperion to partner with our customers to offer tailor-made solutions for all your can tooling needs:

- Rapid development of new grades and applications
- Responsive to market changes and trends
- Material testing and analytic capabilities
- Application engineers around the world.
Hyperion’s applied materials expertise provides an optimized material solution for each tooling application including hard tool steel (coated or non-coated), cemented carbides, and zirconia ceramics. In addition, Hyperion is continuously developing new tooling materials, including lighter weight carbides and materials with improved resistance to adhesion, abrasion, and corrosion.

### NECKER TOOLING

*KNOCK OUTS*  
*NECKING DIES*

<table>
<thead>
<tr>
<th>MATERIALS</th>
<th>CERAMIC YZ-110HS</th>
<th>H12N</th>
<th>STEEL* AISI D2</th>
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<tbody>
<tr>
<td>COLOR</td>
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<td>Black</td>
<td>Dark Gray</td>
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<tr>
<td>TOUGHNESS</td>
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<td>★★★</td>
<td>★★★★</td>
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<tr>
<td>RESISTANCE TO</td>
<td></td>
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</tr>
<tr>
<td>ABRASION</td>
<td>★★★</td>
<td>★★</td>
<td>★</td>
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<tr>
<td>CAUSTIC BATH</td>
<td>★★★</td>
<td>★</td>
<td>★</td>
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<tr>
<td>ADHESION</td>
<td>★★★</td>
<td>★★</td>
<td>★</td>
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</tbody>
</table>

* Only for knock outs

Hyperion has the capability to manufacture **round and out-of-round** cupper press tools.

### CUPPER TOOLING

*DIE CENTER*  
*DRAW PAD*  
*CUT EDGE DIE*  
*BLANK DRAW DIE*

<table>
<thead>
<tr>
<th>MATERIALS</th>
<th>H12N</th>
<th>S385</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOUGHNESS</td>
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<td>★★★</td>
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<tr>
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<tr>
<td>CORROSION</td>
<td>★★</td>
<td>★★★</td>
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</table>
BODYMAKER TOOLING

**Sencon Short Can Sensor for steel can 267-03**

**STANDARD**
- S385
- H12N
- S323
- DZ10

**PREMIUM**
- S385
- H12N
- S323
- DZ10
- DZ18

**Density**
- Standard (~14.5 g/cm³)
- 15% Lighter

**Magnetic Carbide**
- NO
- YES

**Sencon Short Can Sensor** (aluminum can)
- 487 PDP 33/53, 387SCT, 287-53
- 487 PDP 03/63, 387SCT, 287-63, 287-03

**Toughness**
- 4x
- 3x
- 2x

**Resistance to**
- Abrasion
- Corrosion

**Tool Life**
- 1x Standard (10 - 15 million cans / rework)
- 2x ~ 3x
- 2x ~ 4x

**Magnetic Carbide**
- NO
- YES

**C9M**
- H10F

**Toughness**
- 4x
- 3x

**Resistance to**
- Thermal Crack
- Abrasion
- Corrosion

**Ironing Die**
- H12N, S385
- White Ceramic

**Redraw Sleeve**
- H12N, S385
- Ceramic
- Steel Coated / Uncoated

**Outer Retainer / Hold Down Ring**

**Materials**
- Steel Coated / Uncoated

**Punch Nose**
- Dome Die
- Punch Bolts

**Materials**
- H6F

**Materials**
- Standard
- Premium
FROM IDEA TO END SOLUTION

Hyperion is a leader in the global manufacturing of engineered can tool solutions and product development for the canmaker.

Our commitment of early involvement in new product development programs allows Hyperion customers to leverage our core strengths, which secures the highest level of technical, engineering, design, and manufacturing support. Our core strengths are our expertise in applied materials and product development, along with a fully integrated manufacturing process for can tooling and involving the end user early in new product development projects - from design stage to end support and recycling.

Our worldwide presence in the Americas, Europe, and Asia actively supports new 2 piece D&I (Drawn & Wall Ironed) cans developments for beverage, food, and bottle cans as well as new plants.

MATERIAL & TOOLING INNOVATION

Our ongoing material development programs at Hyperion Research and Development focus on providing canmakers with superior products of consistent quality in different grades to perfectly fit the application.

ENGINEERING SUPPORT

TOOL & CAN DESIGN ASSISTANCE

The canmaking industry is globally challenged to create light weight cans and improve efficiencies. Due to regional requirements, sometimes the same challenge requires different solutions.

CONSULTANCY IN TOOLING EFFICIENCY

We work closely with the industry (canmakers, original equipment manufacturers (OEM), and engineering companies) to improve and develop the tool design and process to increase line efficiencies and reduce spoilage. It includes on-site training for D&I process, plant audits, and problem solving support.

INTEGRATED MANUFACTURING PROCESS

Our manufacturing is fully integrated with advanced production in powder processing, sintering, and finishing.

COMPLETE PRODUCT RANGE

We produce cupper press, bodymaker, and necker tools made of carbide, ceramic, and steel. Our metallurgical processes are rigorously controlled, from the raw material to the finished product.

CARBIDE SCRAP RECOVERY PROGRAM
Did you know that your products containing tungsten carbide can be recycled? Recycling used carbide is a critical activity, and Hyperion is a market leader. Tungsten is a rare element. Without recycling, the world’s tungsten supply is dependent on a small amount of ore from one country. Hyperion’s focus on recycling is customer driven, ensuring a sustainable supply of raw materials to meet your finished product needs.

Making tools from recycled solid carbide:
- Requires 70% less energy
- Emits 40% less CO$_2$
- Secure source of a conflict mineral.

Hyperion, through our Carbide Recycling Program, purchases used carbide tools and products from our customers in order to convert them back into usable raw materials for future production. We use a controlled, certified chemical recycling process that ensures these “new” materials are identical to materials produced from mined ore.

DID YOU KNOW?
15 tons of mined earth is needed to yield the same amount of tungsten as when recycling just 70 kg of carbide. Recycling 1.2 kg of scrap will return 1 kg of carbide.