

# HIGH-PERFORMANCE MATERIALS

## Material Matter Expertise

When it comes to critical parts—whether they’re corrosion-resistant bearings, durable mold tools, or lightweight automotive components—material selection is essential.

From commodity to cobalt-chromium, Hybrid CNC Parts has the expertise to help you select the most suitable materials for your application—and the technical skills to engineer and machine it.

We provide:

- High-performance alloys and superalloys.
- Functionally-graded materials.
- Near-net shape, fully-dense metal hybrid manufacturing.
- Reliable feedstock options.

## Hybrid Possibilities

We work with hard-to-machine, heat-resistant materials that offer exceptional benefits, but are often overlooked due to expense, supply chain instability, and processing difficulty.

Our **wire-laser hybrid manufacturing** method utilizes efficient near-net shape printing, targeted functional grading, and readily available wire feedstock—making these high-performance materials and their benefits accessible to our customers.

## Materials & Relative Properties

A selection of the materials we work with and their relative property applicability.

Material	Lightness	Heat Resistance	Corrosion Resistance	Hardness/Wear Resistance	ISO Group	Example Grades	Hybrid Compatible
Nickel	—	■ ■ ■	■ ■ ■	■ ■	ISO S Heat-Resistant Superalloys	Inconel® 625, 718, X-750 Hastelloy® C-276	✓
Cobalt	—	■ ■ ■	■ ■ ■	■ ■ ■	ISO S Heat-Resistant Superalloys	Stellite® 6 Haynes® 188 Ultimet®	✓
Titanium	■ ■	■ ■	■ ■	—	ISO S Heat-Resistant Superalloys	Grade 2, 5	✓
Stainless Steel	—	■	■ ■	■ ■	ISO M Stainless Steel	304, 316, 440C, 17-4H	✓
Carbon Steel	—	—	—	■	ISO P Steel	1018, 1045, A36	✓
Tool Steel	—	■ ■	■	■ ■ ■	ISO H Hardened Materials	H11, H13, M2, M50, T1, D2	✓
Aluminum	■ ■ ■	—	■	■	ISO N Non-Ferrous Metals	6061, 7075	

