Enhancing your performance

Special Steels, Superalloys, Aluminum and Titanium for the Naval and Marine Industries

The information and the data presented herein are typical or average values and are not a guarantee of maximum or minimum values. Applications specifically suggested for material described herein are made solely for the purpose of illustration to enable the reader to make his own evaluation and are not intended as warranties, either express or implied, of fitness for these or other purposes. Aubert & Duval’s liability shall not extend, under any circumstances, for the choice of the Product and its consequences.

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Contact us:
www.aubertduval.com
A Proven Record in Marine Industry

With a proven record in the marine industry, Aubert & Duval offers metallic solutions for every situation.

Our pledge: your satisfaction

A wide array of solutions for small and mid-size critical components

Merchant vessels, warships, submarines and offshore vessels: this market represents approximately $300 billion in the next 20 years. When it comes to small and mid-size components able to guarantee safety, increase performance and withstand sea-water corrosion, think of Aubert & Duval. We are proud to participate in the development of cooling circuits for submarines, precision shafts for water-jet-turbines, landing grids for helicopters and UAV (Unmanned Aerial Vehicle), as well as in numerous other marine projects.

A proven history in marine industry

For more than 30 years, Aubert & Duval has been a leader in the most demanding marine applications. Our reputation has gained partnerships such as with DCNS, Areva/Technicatome, Rolls-Royce Marine, BAE Systems and Navantia.

Qualified Products and Process

Aubert & Duval follows the most stringent requirements in terms of grade composition, microstructural integrity, dimensional tolerances and quality control. Our products comply with multiple military standards.

Development

With RAM equal to 2% of turnover spent every year, and with dedicated investments in melting, remelting, machining, and testing equipment, Aubert & Duval makes sure that it remains competitive in terms of performance, quality and cost.

Because we believe in the future of titanium, Aubert & Duval is investing in a dedicated forging workshop, together with UKTMP, a leading supplier in Titanium. In order to save on raw materials and costly operations for its customers, Aubert & Duval is constantly promoting innovative near net shape (NNS) solutions. This includes Powder Metallurgy hipped products, developed in cooperation with Erasteel, a sister-company of Aubert & Duval.

Dedicated capabilities

To meet specific requests for critical parts in the Marine industry, Aubert & Duval offers an extensive product range. It provides the optimum compromise between mechanical properties (yield strength, fatigue) and resistance to localized corrosion (pitting and crevice).

The following processes are available within Aubert & Duval, or qualified subcontractors:

- Steel making for any special, stainless steel or superalloy : EAF + AOD/VOD, VAR, gas-atomization powder.
- Remelting ESR or VAR
- Open-die forging (parts up to 3 tons)
- Closed-die forging parts up to 8 Tons (with presses from 4500 to 65000 tons)
- Rolling of bars, sheets and plates
- Heat treatment for up to 27-meter long forged parts
- Machining up to 20 meters

Aubert & Duval is also a leader in steel and superalloy parts for Aerospace, Oil & Gas, Land and Sea Transportation and the Defense markets. Please ask for the corresponding brochures.

Aubert & Duval Proprietary Steels

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<tr>
<th>Grade</th>
<th>Type</th>
<th>Applications</th>
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<tbody>
<tr>
<td>Super-Austenitic Stainless Steel</td>
<td>NYB66*</td>
<td>Sea water circuit, cups, piston, bell for flexible</td>
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<td>Martensitic Stainless Steel</td>
<td>API5</td>
<td>Periscope parts</td>
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<td>Precipitation Hardening Steels</td>
<td>MARVALY12</td>
<td>Helicopter / UAV landing grids</td>
</tr>
<tr>
<td>MARVALY17</td>
<td>BLK17</td>
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Superalloys and Titanium

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Aluminum

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Dedicated capabilities

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- Remelting ESR or VAR
- Open-die forging (parts up to 3 tons)
- Closed-die forging parts up to 8 Tons (with pressures from 4500 to 65000 tons)
- Rolling of bars, sheets and plates
- Heat treatment for up to 27-meter long forged parts (shafts and tubes)
- Machining up to 20 meters

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The following processes are available within Aubert & Duval, or qualified subcontractors:
- Steel making for any special, stainless steel or superalloy
- EAF + AOD/VOD, VIM, gas-atomization powder.
- Remelting ESR or VAR
- Open-die forging (parts up to 30 tons)
- Closed-die forging parts up to 60 Tonne (with pressures from 4500 to 60000 ton)
- Rolling of bars, sheets and plates
- Heat treatment for up to 27-meter long forged parts (eg shafts and tubings)
- Machining up to 20 meters

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Development
With R&D equal to 2% of turnover spent every year, and with dedicated investments in melting, remelting, machining, and testing equipment, Aubert & Duval makes sure that it remains competitive in terms of performance, quality and cost.

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