A new grade for the UGIMA®2 family

Machining performance and flexibility combined with corrosion resistance!

UGIMA® 4404 is already a benchmark, UGIMA® 4404HM is a new technological advance.

Optimised machinability, whatever the operation and whatever the machine used.
- Improved chip breakability.
- Productivity increases of 10 to 20% over UGIMA® 4404

UGITECH remains at the cutting edge of machinability.
We shall continue to develop UGIMA®2
For all grades designed for machining purposes!

UGIMA® 4404 HM / UGIMA® 316L XL
C 0.030 max • Cr 16.5-17.5 • Ni 11-12 • Mo 2.0-2.5

Complies with standards
EN 10088-3 : 1.4404 et 1.4401 X2CrNiMo 17-12-2 - AISI 316L et 316 - JIS SUS 316

As promised!
### Productivity increase calculation method

<table>
<thead>
<tr>
<th></th>
<th>UGIMA® 4404</th>
<th>UGIMA® 4404HM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter (mm)</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Component length (mm)</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Material weight (kg/m)</td>
<td>0.617</td>
<td></td>
</tr>
<tr>
<td>Material weight per component (g)</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Hourly machine cost (€/hr)</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>No. of components per production run</td>
<td>100 000</td>
<td></td>
</tr>
<tr>
<td>Productivity* (components per production run)</td>
<td>117.5</td>
<td>137.5</td>
</tr>
<tr>
<td>Machining cost (€/component)</td>
<td>0.26</td>
<td>0.22</td>
</tr>
<tr>
<td>Machining increase per component (€)</td>
<td>0.04**</td>
<td></td>
</tr>
<tr>
<td>Production run increase (€)</td>
<td>4000</td>
<td></td>
</tr>
<tr>
<td>Material cost per component (€)</td>
<td>0.04**</td>
<td></td>
</tr>
</tbody>
</table>

*with 83% efficiency  
**Nota Bene: In this example, the machining increase is equivalent to the material cost

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**UGIMA® 4404 HM**  
**UGIMA® 316L XL**

For a production run of 100,000 components of the type illustrated above, the productivity increases obtained result in a saving of 0.04 € per component, i.e. a total of 4000 €.

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**Turning**

- Screw machining with Tin coated carbide insert

**Drilling**

- Ø4 mm HSS over a depth of 16 mm

**Cross-cutting**

- With TiCN coated carbide insert  
  VC=140 m/min - F=0.05-0.015

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